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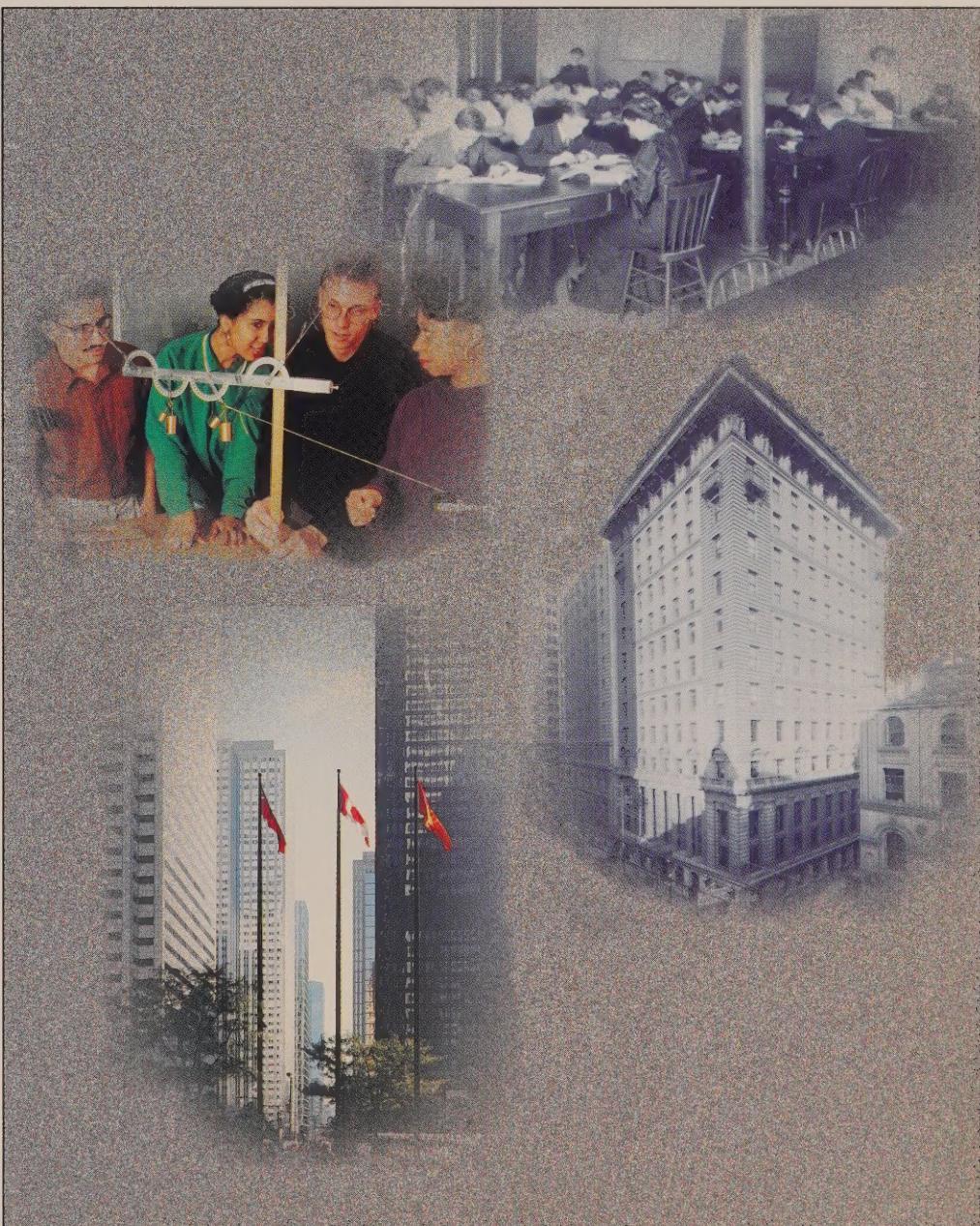
PERSPECTIVES

ON LABOUR AND INCOME

SPRING 1998

Vol. 10, No. 1

- STAY-AT-HOME DADS
- WORK ABSENCES
- EMPLOYEE TRAINING
- RRSPS
 - CONTRIBUTIONS AND WITHDRAWALS
 - UNUSED ROOM

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29 RRSP contributions and withdrawals:

An update

Ernest B. Akyeampong

This study examines some of the factors underlying the rapid growth in RRSP contributions since 1991, and explains how, and why, the composition of contributions has changed. Regional differences in RRSP participation are also provided. Finally, RRSP withdrawals are briefly noted.

34 Tapping unused RRSP room

Hubert Frenken

Relatively few eligible taxfilers take advantage of their unused RRSP contribution room in a given year, and they use only a fraction of it. This article looks at how much room has accumulated since 1991. It also examines which taxfilers are using their RRSP room.

In honour of *Perspectives'* 10th anniversary, our cover presents both current and historical perspectives on labour and income. All historical photographs used throughout the issue are from the National Archives of Canada.

Our anniversary logo was designed by John Bradford of the Labour and Household Surveys Analysis Division; the cover was designed by Rachel Penkar of Dissemination Division.

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Forum

Letter from the Editor-in-Chief

■ The Winter 1997 issue of *Perspectives* carried an article entitled "The redistribution of overtime hours" by Diane Galarneau. The article began with estimates of the number of hours of paid overtime usually worked by employees (using data from the 1995 Survey of Work Arrangements). It then examined what might have happened to the unemployment rate at the time had these hours been redistributed to the unemployed under various hypothetical constraints, such as the donor hours having to come from the same province as the unemployed who would receive them, and donors and recipients having to be in the same occupational group, and so forth.

The media coverage of this article and the reactions of many with an interest in the topic reminded me of the fable of three blind men trying to describe an elephant: same beast, but widely different perceptions. Some journalists and economists argued that the feasibility of redistributing overtime hours (one of many proposed approaches to the more general concept of work sharing) had already been totally discredited and was unworthy of further examination. To them, the article's suggestion that this redistribution could alleviate unemployment, however slightly, was offensive. Other journalists, or more precisely, the people interviewed for a reaction to the study's findings, objected to anything that suggested that this redistribution would not play a significant role in alleviating unemployment.

Both reactions reveal a misperception of Statistics Canada's role in public policy debate. Statistics Canada does not have a position on the redistribution of overtime. In fact, the Agency assiduously tries to avoid becoming part of such debates, and more particularly, being seen as supporting one side or the other.

Simply put, the goal of Statistics Canada, in both its statistical and analytical output, is to provide data to inform public policy debate. Our numbers are often used by all sides to support certain contentions or to challenge others. We are pleased when this happens, since it is testimony to both the relevance of our data and our achievement of neutrality.

In other instances, directly applicable estimates may not be so readily available. It may then be necessary for Statistics Canada to discern the need for quantitative information and to try to derive that information from our data holdings and to present it in a readily understood form of analysis.

This was precisely our intention with the article on the redistribution of overtime hours. The debate had been going on for some time, largely without empirical foundation, and showed every sign of continuing. With the advent of data from the Survey of Work Arrangements, particularly those on usual hours of paid overtime and on preferences for hours of work, we realized that we could offer up some quantitative information to the debate. The article was then crafted to make it very clear that this was an exercise in the construction of alternative scenarios, and not a single set of predictions describing the product of a specific policy option. The vocabulary used was intended to convey the exploratory nature of the exercise, with such phrases as "might have been created," "had it been possible to convert," "hypothetical jobs," "rests on several assumptions," "potential new jobs," and so forth. Rather than simply address the issue of matching donor and recipient occupations once and imply that this matching was the only measure of the effect of occupation, the study provided three levels of occupational precision for consideration.

We can appreciate that in the heat of debate the participants might assume that all players were taking an advocacy position. However, Statistics Canada doesn't take positions. We need to recognize, though, that just because that principle is second nature to us, it isn't necessarily obvious to people outside the organization. Certainly those of us working on *Perspectives* will strive to make the Agency's position of neutrality even clearer in the future.

Year-end review

On a completely different topic, the Spring issue of *Perspectives* has always contained a year-end review of the labour market. (Similarly, the Autumn issue always contained a mid-year review.) For the first time since *Perspectives*' début in early 1989, the Spring issue will not contain a year-end review.¹ It is not that this regular feature has been unpopular with our readers. Rather, it reflects the results of further enhancements of Statistics Canada's analytic output; in this case, enhancements associated with the revisions to the Labour Force Survey (LFS) that took effect in January 1997.

In addition to expanding the content of the LFS (adding wage rate, unionization and several other variables), the revision extended to the survey's dissemination program, which has been radically modified

to better serve the needs of its users. This revision includes the launch of a new analytic quarterly called *Labour Force Update*, based primarily on LFS data. The first three issues covered the labour market experience of youths, the distribution of hours worked, and the situation of the self-employed. The fourth issue reviews the labour market for 1997; in other words, it presents a year-end review. From now on, these reviews will be carried in *Labour Force Update*. As for our mid-year reviews, we will cease publishing these unless extraordinary events in the labour market warrant it.

Our subscribers will receive a complimentary copy of the *Labour Force Update* in which the 1997 year-end review appears. In the future, *Perspectives* readers with a continuing interest in these reviews are encouraged to subscribe to *Labour Force Update*.²

Ian Macredie
Editor-in-Chief



■ Notes

1 Actually, the mid-year and year-end reviews predate the launch of *Perspectives*. These articles began with the 1982 mid-year review when we (yes, I was involved even then) recognized the need to go beyond the traditional month-to-month analysis provided by the monthly LFS. We thought a fuller appreciation of labour market change was in order.

2 For additional information on this new quarterly (Catalogue no. 71-005-XPB, \$29/\$96), contact Geoff Bowlby at (613) 951-3325; Internet: bowlgeo@statcan.ca or Jean-Marc Lévesque at (613) 951-2301; fax (613) 951-2869; Internet: levejea@statcan.ca.

We welcome your views on articles and other items that have appeared in *Perspectives*. Additional insights on the data are also welcome, but to be considered for publication, communications should be factual and analytical. We encourage readers to inform us about their current research projects, new publications, data sources, and upcoming events relating to labour and income.

Statistics Canada reserves the right to select and edit items for publication. Correspondence, in either official language, should be addressed to: Heather Berrea, What's new? Co-ordinator, *Perspectives on Labour and Income*, 5-D Jean Talon Building, Statistics Canada, Ottawa K1A 0T6. Telephone (613) 951-8613; fax (613) 951-4179 or on the Internet: berrhea@statcan.ca.

When *Perspectives* first appeared in 1989, a friend of mine said, on reading the first two issues, "It's very good but can you keep up that level of quality?" I leave the answer to you.

Whatever your judgement, *Perspectives* continues to hold onto a large subscriber base, and to be cited in all manner of publications. And the news media continue to receive each new issue with enthusiasm. It is this level of support that has kept us working on *Perspectives* and has now brought us to our 10th volume.

To mark this event, the four issues of Volume 10 will carry an anniversary logo on the cover. In



the same spirit, this issue features a cover with a "historical development" theme, and each article begins with a relevant archival photograph.

If we had one wish for our next 10 years it would be to have more feedback from our readers. While we believe we have done a fair job of judging what analysis interests you, we could target your needs even more precisely if you would let us know. We welcome your communications.

Ian Macredie
Editor-in-Chief

Highlights

■ Stay-at-home dads

... p. 9

- The estimated number of families with a stay-at-home dad increased from 41,000 in 1976 to 77,000 in 1997. Of all families with a stay-at-home parent, 6% had a father at home in 1997, up from just 1% in 1976.
- Families with a stay-at-home dad are less likely than those with a stay-at-home mom to have a pre-school aged child at home (40% versus 59%). This may be because only mothers are entitled to paid maternity leave when children are infants, and because most mothers take the parental leave benefit. Of the roughly 31,000 parents on paid parental leave in a given month, only about 1,000 are fathers.
- Stay-at-home parents generally have lower occupational and educational attainment levels than earning parents. This suggests that reduced employment options may have contributed to their decision to remain at home. For example, only 18% of stay-at-home fathers and 25% of stay-at-home mothers who worked in the past year were employed in managerial or professional occupations, compared with 30% of earning fathers and 39% of earning mothers.
- The length of time out of the workforce varies substantially for stay-at-home fathers and mothers: 49% of fathers at home have been there for less than one year, while the corresponding figure for stay-at-home mothers is only 19%. In contrast, 17% of stay-at-home dads have been at home for five years or longer, compared with 45% of stay-at-home mothers.

■ Work absences: New data, new insights

... p. 16

- In 1997, close to half a million full-time workers lost some work time each week for personal reasons (excluding maternity leave). On average, each full-time employee lost 7.4 days over the year – 6.2 for illness or disability and 1.2 for personal or family responsibilities. This amounts to an estimated 66 million workdays in total.
- Time lost for personal reasons averaged 6.3 days for men in 1997, and 9.1 for women. Women lost more work time than men for illness or disability (7.6 days

versus 5.3) and for personal or family responsibilities (1.5 days versus 0.9). The presence of pre-school aged children exerts a strong influence on work absences for personal or family responsibilities, especially for women. In families with pre-schoolers, women lost 4.2 days for this reason, compared with 1.8 for men.

- Full-time workers in public administration and in transportation and communication lost the most time in 1997 (8.9 days each). Those in agriculture and in trade lost the least (5.5 and 5.8 days, respectively). Almost all the difference can be traced to absences due to illness or disability.
- British Columbia (8.8 days) and Quebec (8.4) recorded the most work time lost; Alberta (6.5) and Ontario (6.6), the least.
- Workers covered by a union contract missed almost twice as many workdays for personal reasons as their non-unionized counterparts (10.7 versus 5.6 days). This is not surprising, since most, if not all, collective agreements include paid sick leave entitlements.
- Full-time workers with a flexitime arrangement were less likely than those without this option to report missing some work during the reference week because of illness or disability (3.4% versus 4.0%), according to the 1995 Survey of Work Arrangements.

■ An international comparison of employee training

... p. 23

- The average Canadian employee received 44 hours of training in 1994, according to the International Adult Literacy Survey. This finding was similar to that of Switzerland, the United States and Germany, but considerably less than that of the Netherlands (74 hours per employee).
- These hours include employer-supported, government-supported, and self-supported training. In Canada, 33% of employees received employer-supported training, while 15% undertook training on their own. A much smaller percentage (5%) received support from the government. Employer-supported training involved fewer hours than self-supported training (83 versus 121 hours per trainee).

- Canada reported the highest incidence of employees who wanted more training for career- or job-related reasons (33%).
- Women and employees in small firms generally received less employer-supported training than did men or employees of large firms. This was the case for all participating countries.

■ RRSP contributions and withdrawals: An update ... p. 29

- Annual contributions to RRSPs rose steadily from about \$15 billion in 1991 to more than \$26 billion in 1996, a 74% increase. Over the same period, the number of contributors increased by 28%, from 4.7 million to almost 6 million.
- The reasons for this growth are varied. Changes to the *Income Tax Act* in 1990, which increased RRSP contribution opportunities for most taxfilers; the economic upturn; and growing concerns about the Canada and Quebec Pension Plan and the Old Age Security/Guaranteed Income Supplement programs have all contributed. Financial institutions' effective promotion of RRSP participation and recent growth in group RRSPs have also played a role, as has a drop in participation in employer-supported pension plans.
- In 1995, RRSP participation rates were generally higher in the three westernmost provinces and lower in the Atlantic provinces. Average amounts contributed in British Columbia, Ontario and Alberta exceeded the national average, while they fell well below it in Newfoundland and Manitoba.
- The Yukon and Northwest Territories present a unique picture. Though they held the top positions in the country for eligibility rates and average contributions, their participation rates were lower than the national average.
- Withdrawals from RRSPs also rose between 1991 and 1996 (from \$3.2 billion to \$4.4 billion), as did the number of persons making withdrawals (from 604,000 to 851,000). However, average withdrawals were virtually unchanged: from \$5,271 to \$5,212.
- From 1991 to 1994, Canadians were cashing in one dollar of RRSP savings for every five contributed; by 1996, they were removing just 85 cents for every five dollars contributed.

■ Tapping unused RRSP room ... p. 34

- From 1991 to 1997, the number of taxfilers with RRSP room increased by a third to a total of 19 million. Meanwhile, the amount of RRSP room grew nearly five-fold, from \$45 billion to more than \$216 billion.
- There are indications that at least some of the accumulated room is being used up by a growing number of taxfilers. The proportion of total room used decreased annually from 1991 to 1995, but levelled off to 12% in 1996. One reason for this was the reduction of the maximum dollar amount of new room credited to taxfilers that year, from \$14,500 to \$13,500.
- Only about one-third of taxfilers with RRSP room contributed in 1995; 29% of contributors used up at least some of their previously accumulated room.
- A large proportion of unused RRSP room is held by taxfilers under the age of 45 and by those with low incomes. Taxfilers who use their room, on the other hand, tend to be 45 to 64, and have an income of \$40,000 and over. For example, while 38% of all 1995 RRSP contributors were between 45 and 64, more than 47% of those who tapped their unused room that year were in that age group. Those making over \$40,000 accounted for 62% of the \$9.4 billion contributed.

■ What's new? ... p. 39

- *Work Arrangements in the 1990s* provides information on the hours people work, the emergence of alternative work patterns such as flexitime and home-based work, the work schedules of families and students, and the quality of jobs as defined by wage and non-wage benefits, unionization, job permanence and employer size.
- *Earnings of Men and Women, 1996* compares the earnings of men and women by province, age, education, occupation and work experience. Also presented are data on husbands' and wives' contributions to family income.
- According to *Failing Concerns: Business Bankruptcy in Canada*, firms in Canada go bankrupt primarily because their managers lack the experience, know-how or vision to run their business. Key deficiencies are bad financial planning and the inability to master basic management skills.

- According to a recent article in *Canadian Social Trends*, more than one-fifth of workers with a university or community college certificate, diploma or degree felt overqualified for their jobs in 1994.
- *Low Income Cut-offs* has been updated to reflect the 1997 cost-of living increase, as indicated by the annual change in the Consumer Price Index.
- *Government Finances and Generational Equity* offers a detailed analysis of the current state of Canadian fiscal policy and the way in which it has changed over the past two decades. Collected essays consider the deficit as a measure of generational equity; the age distribution for government taxes and transfers; the effect of reducing the national debt on the well-being of current and future generations; and the manner in which generational equity should be measured.
- Employment growth in 1997 pushed the unemployment rate down to 9.1% by mid-year, and to 8.6% by year-end, the lowest rate since September 1990. This is but one of the many highlights in the fourth issue of *Labour Force Update*, which offers an overview of the 1997 labour market.
- Statistics Canada recently conducted a survey to assess the business community's readiness for the Year 2000 computer problem. A report on the survey determines how businesses in different industries and size categories have been preparing for potential difficulties, and assesses the general cost and magnitude of fixing the problem.
- *North American Labor Markets: A Comparative Profile* examines the labour markets of the United States, Mexico, and Canada. It presents emerging trends and themes over the 1984-to-1995 period in such areas as employment, work time and non-standard work, unemployment, unionization, earnings, productivity, income distribution and employment benefits.
- The Analytical Studies Branch has released two more research papers. *Job Turnover and Labour Market Adjustment in Ontario from 1978 to 1993* looks at permanent layoffs and separations and their probabilities, and at labour market transitions for separated workers. *International Competition and Industrial Performance: Allocative Efficiency, Productive Efficiency, and Turbulence* reviews theory and recent empirical evidence of the effects of international competition on the performance of domestic industries.

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Stay-at-home dads

Katherine Marshall

Over the past two decades, the proportion of single-earner husband-wife families¹ with children at home has decreased from 59% to 31%. During this period, some characteristics of these families have also changed. For example, in 1976, wives were breadwinners in only 4% of all single-earner husband-wife families with children; 21 years later, that figure had increased to 16% (see *Data sources and definitions*).

Does this imply a rise in the number of "stay-at-home" dads? There may well be more fathers without a paid job and at home – both by choice and by default (because they are unemployed or have returned to school). Whatever the reason, a rise in the number and proportion of families with a father at home has social and economic implications. The reversal of traditional sex roles, for example, even if positive in the long term, may initially create personal and family tension or provoke social discrimination.² Furthermore, family finances may be affected. Families headed by female breadwinners have traditionally reported lower annual incomes.

Based on a selected definition of "stay-at-home" (see *In search of the stay-at-home parent*), this article examines the characteristics of fathers who stay at home in husband-wife families with children under 16. Some comparisons are made with stay-at-home mothers and with employed parents. An overview of recent changes in family types, use of parental leave, and time use among single-earner families puts the analysis in context.

Katherine Marshall is with the Labour and Household Surveys Analysis Division. She can be reached at (613) 951-6890.



Feeding a black squirrel in High Park, Toronto, 1917

Changing families and the roles within

Since the advent of industrialization, women have been largely responsible for most household and family work, and men for paid work. However, with the long-term rise in women's labour force participation, and more recently, men's growing involvement in child care, parents' roles are becoming less traditional (see *Parental leave and Time use of stay-at-home parents*).

The shift in roles reflects the changing structure of families. For example, the percentage of dual-earner families with children under 16 rose from 34% in 1976 to 56% in 1997 (Chart A). The percentage of lone-parent families doubled from 5% to 10% – owing mainly to an increase in female lone parents – and families in which the wife was sole earner grew from 2% to 5% of all families. These changes contributed to the steep decline in the percentage of families in which the husband was sole earner (from 54% to 23%).

This increase in dual-earner and lone-parent families means that many parents face a greater challenge in balancing work and family responsibilities. In order to meet this challenge, some may decide to pay for child care or other household services, and/or to alter their work arrangements (Marshall, 1994 and Statistics Canada, forthcoming). Others may opt to have one parent leave the labour force and remain at home. This article focuses on the last approach, and in particular, on families in which the father becomes the stay-at-home parent.

Why families have only one earner

The number of single-earner two-parent families with children under 16 at home declined steadily between 1976 and 1997, from 3.3 million to 1.8 million (Table 1). Families with a non-earning mother decreased from 3.2 million to 1.5 million over the same

Data sources and definitions

The monthly Labour Force Survey (LFS) collects labour market information for all household members aged 15 and over, as well as demographic and family relationship information for all household members, making it possible to derive family types.

The core content of the 1992 General Social Survey was time use. That survey collected data over 12 months from a random sample of about 9,000 respondents aged 15 and older. Each person completed a diary of activities over a 24-hour day, noting the duration of each primary activity, as well as when, where and with whom it had taken place.

The Employment Insurance Statistics database at Statistics Canada uses

administrative data from Human Resources Development Canada. HRDC provides a monthly file on all claims for insurance benefits, which includes such variables as age, sex, occupation, earnings and province of beneficiary, as well as type of benefit, weekly insurable earnings, and weeks of insurable employment.

Single-earner family: in this study, a husband-wife family with children under 16 at home, who, at the time of the LFS, reported that only one spouse was employed, either part time or full time, while the other was unemployed or not in the labour force.

Stay-at-home parent: a person in a husband-wife family with children under 16 at home, who did not have a job or busi-

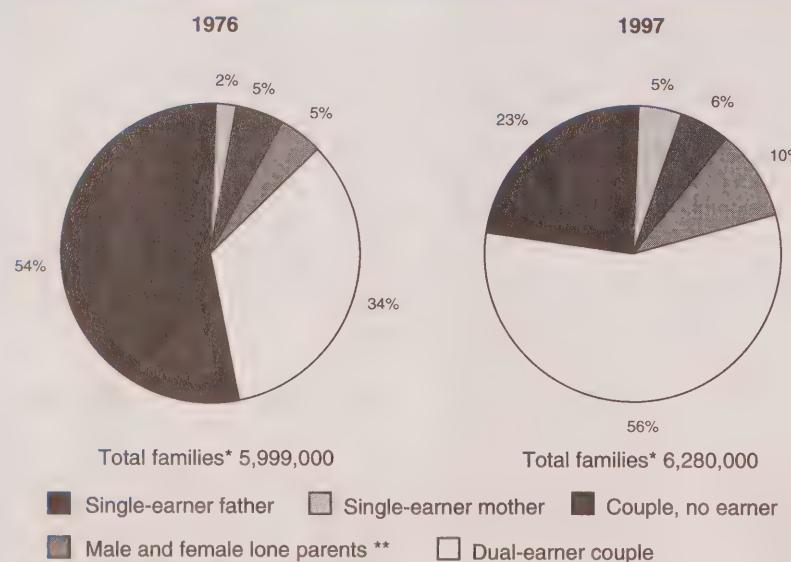
ness at the time of the LFS, was not looking for work, was not attending school, and was not permanently unable to work. (For more discussion see *In search of the stay-at-home parent*.)

Discouraged worker: a person not in the labour force who wanted to have a job, but was not looking for one in the belief that no work was available.

Permanently unable to work: a respondent who reported that he or she had not worked at a job or business because of a long-term physical or mental illness or other disability. This designation is not a measure of medical disability; rather, it allows the respondent to skip over most of the questionnaire.

Chart A

The family structure has changed considerably over the past two decades.



period, while those with a non-earning father increased from 0.1 million to 0.3 million.

Contrary to popular belief, not all families with only one earning spouse have chosen this arrangement in order to allow the other spouse to manage the household. For example, some spouses are unemployed and looking for work, or are permanently unable to work; these people would probably prefer to be working. Others are attending school in order to develop skills or to pursue special interests. Spouses who have most likely chosen not to work so that they may devote time to family responsibilities are, by exclusion, those who are able to work yet are neither looking for work nor attending school. In this study only these persons are assumed to be "stay-at-home" parents.

The profile of single-earner families has changed over time. The number in which the non-earning spouse is unemployed, permanently unable to work or attending school has increased from 347,000 to 542,000 over

Source: Labour Force Survey

* Couples and lone parents with at least one child under 16 at home.

** Includes both employed and not employed.

the past two decades. This growth is mainly the result of an increase in the proportion and number of non-earning mothers and fathers looking for work or attending school (Table 1).

In contrast, the number of single-earner families in which the non-earning spouse opts to stay at home has dropped from 3.0 million to 1.2 million over the same period. Families with stay-at-home mothers have dropped by 1.8 million and those with stay-at-home fathers have increased by 36,000. Therefore, as a result of this diverging trend (Chart B), the proportion of families with stay-at-home fathers has increased from 1% in 1976 to 6% in 1997.

In search of the stay-at-home parent

The stereotypical 1950s stay-at-home mom may have worked after marriage, but once she had children she left the labour force, at least until they moved out. The image of the stay-at-home parent is more elusive today. The stay-at-home parent may be either sex, and the length of time at home may vary. Also, parents may assume the role intermittently; for example, two stretches of paid maternity leave can be viewed as two incidents of stay-at-home motherhood. However, as with the earlier definition, parents who label themselves stay-at-home moms or dads are assumed to have chosen the role, although this may not necessarily be the case.

Statistics Canada does not list "stay-at-home parent" as a possible reason for not being in the labour force. Therefore, this study uses two criteria for the category: 1) there must be dependent children at home; and 2) the stay-at-home parent must not be looking for work, but must be able to work and not attending school. However, it is impossible to know how many stay-at-home parents wished to adopt this role, and how many had no other feasible option. It is known, though, that in 1997, 1% of stay-at-home mothers and 6% of stay-at-home fathers were actually discouraged workers.

Table 1
Single-earner husband-wife families

	1976	1979	1982	1985	1988	1991	1994	1997
'000								
Total single-earner families	3,342	3,013	2,677	2,400	2,028	1,950	1,854	1,759
Earning father/non-earning mother	96	95	91	90	90	83	82	84
Earning mother/non-earning father	4	5	9	10	10	17	18	16
Earning father/non-earning mother	3,215	2,870	2,429	2,152	1,818	1,611	1,528	1,472
Mother unemployed	6	8	11	14	15	19	18	16
Mother not in labour force								
Stay-at-home*	92	91	87	83	80	76	76	77
Attending school	2	2	2	3	4	4	5	5
Unable to work	-	-	-	-	-	1	1	1
Earning mother/non-earning father	128	142	248	248	209	339	326	287
Father unemployed	52	55	68	67	54	62	58	57
Father not in labour force								
Stay-at-home*	32	31	25	25	33	26	25	27
Attending school	6	6	5	4	7	7	9	8
Unable to work	9	8	3	4	6	5	7	8
Single-earner families with non-earning stay-at-home parent	2,996	2,647	2,168	1,846	1,526	1,316	1,245	1,217
Stay-at-home mother	2,955	2,602	2,107	1,784	1,458	1,228	1,163	1,140
Stay-at-home father	41	44	61	62	68	88	82	77
Stay-at-home mother	99	98	97	97	96	93	93	94
Stay-at-home father	1	2	3	3	4	7	7	6

Source: Labour Force Survey

* See Data sources and definitions.

**Table 2
Family characteristics of single-earner husband-wife families**

	Total	Stay-at-home mother (earning father)	Stay-at-home father (earning mother)	
'000				
Total	1,217	1,140	77	
Average number of children under 16 at home				
With children under 16 at home	2.0	2.0	1.6	%
At least one child under 6 at home	58	59	40	
All children aged 6 to 15	42	41	60	
Canada	100	94	6	
Atlantic provinces	100	88	12	
Quebec	100	93	7	
Ontario	100	94	6	
Prairies	100	95	5	
British Columbia	100	95	5	
Residence	100	100	100	
Urban*	80	80	73	
Rural	20	20	27	
Discouraged workers** by region				
Canada	2	1	6	
Atlantic provinces	8	7	15	
Central and western provinces	1	1	4	
Urban*	1	1	5	
Rural	4	3	9	
\$				
Average weekly rate of pay	773	794	502	

Source: Labour Force Survey, 1997

* Population concentration of 1,000 or more and a population density of 400 or more per square kilometre.

** See Data sources and definitions.

Parental leave

Major amendments to the *Unemployment Insurance Act (UIA)* in 1971 brought in a wide range of benefits, including, for the first time, paid maternity leave for women. This leave enabled women to receive 60% of their regular earnings, with a set maximum benefit, for 15 weeks over a 17-week period.

In 1989, Bill C-21 introduced amendments to the *UIA*, which included 10 weeks of parental leave with the birth or adoption of a child. This leave could be taken by one parent or shared (if both parents had accrued enough insurable weeks) any time up to 52 weeks after the child arrived home. As of October 1990, when Bill C-21 passed, fathers have been entitled to paid leave for the purpose of primary care giving. Since that time, roughly 31,000 parents each month, 1,000 of them fathers, have taken parental leave with benefits. Fathers' percentage of all parents on leave has fluctuated between 3% and 4% annually since 1991.

than those with single-earner fathers (Crompton and Geran, 1995; Table 2). On the other hand, these families may have little choice in the matter. Stay-at-home fathers in the Atlantic and rural regions are more likely than those elsewhere to be discouraged workers: 15% and 9%, respectively – well above the 6% national average. Relatively limited opportunities may have led some of these men to remain at home because they believed no work was available.

Families with a stay-at-home dad

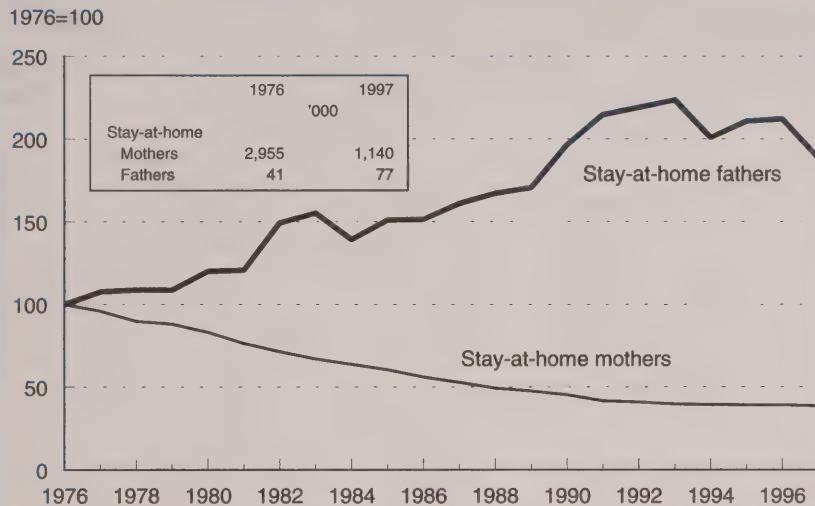
Families with a stay-at-home dad are less likely to have a pre-school aged child at home (40%) than are those with a stay-at-home mom (59%) (Table 2). This may be because only mothers are entitled to paid maternity leave when children are infants, and because most mothers take the parental leave benefit (see *Parental leave*).

The Atlantic region has a disproportionately high rate of families with a stay-at-home father: 12%, compared with 7% or lower for all other regions. Also, one in four such families resides in a rural area, as opposed to one in five families with a stay-at-home mother. The lower cost of living in rural regions may make it somewhat more feasible for families to afford having only the wife employed. Such families tend to have lower earnings

Stay-at-home dads

Stay-at-home fathers differ from their female counterparts, and from earning parents. Their average age is 42, compared with 35 for mothers and 38 for earning parents (Table 3). Four in ten stay-at-home fathers and mothers have a postsecondary certificate, diploma or degree. In contrast, some 55% of earning fathers and 52% of

Chart B
More fathers are opting to stay home with their children.



Source: Labour Force Survey

earning mothers have graduated from a postsecondary institution. Similarly, only 18% of stay-at-home fathers and 25% of stay-at-home mothers who worked in the past year were employed in managerial or professional occupations, compared with 30% of earning fathers and 39% of earning mothers.

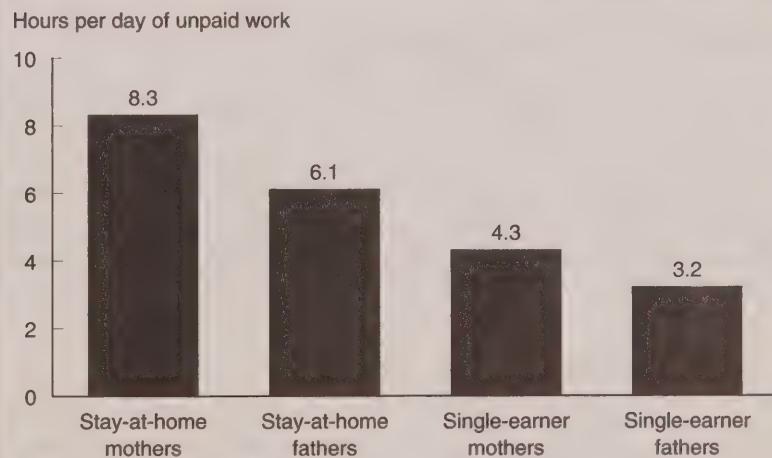
The lower occupational and educational attainment levels of some stay-at-home parents suggest that reduced employment options may have contributed to their decision to remain at home with the children. And the length of time out of the workforce varies by sex: 49% of fathers at home have been out for less than one year. The corresponding figure for mothers is only 19%. Roughly one in three stay-at-home fathers and mothers have been out of the workforce for one to five years, and a full 45% of mothers and 17% of fathers have been

Time use of stay-at-home parents

Stay-at-home mothers did an average 8.3 hours per day of unpaid work in 1992, including child care, housework (meal preparation, meal clean-up, indoor cleaning, laundry and other related work), shopping and volunteer work, while stay-at-home fathers did an average 6.1 hours.

In contrast, single-earner mothers and fathers put in a daily average of 4.3 and 3.2 hours, respectively, of unpaid work. These fathers did an average 7.1 hours of paid work per day, however, and mothers, some 6.0 hours (averaged over 7 days).

Stay-at-home mothers do the most unpaid work.



Source: General Social Survey, 1992

**Table 3
Characteristics of stay-at-home and earning parents in single-earner husband-wife families**

	Stay-at-home father	Stay-at-home mother	Earning father	Earning mother
Average age	42	35	38	38
		%		
Education	100	100	100	100
High school graduation or less*	58	58	46	48
Postsecondary certificate or diploma	27	29	35	35
University degree	16	13	20	17
Occupation**	100	100	100	100
Managerial/professional	18	25	30	39
Clerical, sales and service	15	62	18	49
Processing, machining and fabricating	14	6	22	7
Construction	25	--	11	--
Other	28	7	18	4
Duration out of labour force	100	100	...	...
Less than 12 months	49	19	...	...
12 to 59 months	34	36	...	...
60 months (5 years) or more	17	45	...	...
Reason left last job (if worked in past 12 months)	100	100	...	...
Lost job	67	43	...	...
Personal or family responsibilities	--	34	...	...
Other	30	23	...	...

Source: Labour Force Survey, 1997

* May include postsecondary education that was not completed.

** The occupation for stay-at-home parents refers to the last job they held, for those who worked in the past 12 months.

out for five years or longer. Among the stay-at-home parents who have worked in the past year, 67% of fathers and 43% of mothers said they had lost their last job. One in three mothers (34%) had stopped work because of family or personal responsibilities; 30% of fathers and 23% of mothers reported other reasons.

Summary

The number of husband-wife families opting to have one parent stay at home dropped from 3.0 million in 1976 to 1.2 million in 1997. This is a direct result of a reduction in families with a stay-at-home mother (1.8 million), and in spite of a 36,000 increase in the number of families with a stay-at-home father.

Although this article has focused on families with a stay-at-home father (77,000 in 1997), some 210,000 families have fathers at home for other reasons (unemployment, at school, unable to work). Even if some of these men have not chosen to stay at home, and despite whatever time some may spend searching for employment, they are assuming the role of a

stay-at-home parent – performing unpaid work and child care at home. Fathers at home, by choice or otherwise, are sensitizing themselves and their children to a role historically unfamiliar to most men. □

■ Notes

- 1 This includes common-law families.
- 2 R. LaRossa discusses the “negative consequences that have accompanied asynchronous change in the social institution of fatherhood.” He cites several sources that address this issue in detail.

■ References

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Work absences: New data, new insights

by Ernest B. Akyeampong

Previous studies by Statistics Canada have mentioned work schedules and collective agreement provisions as possible factors influencing the level of work absences for personal reasons (absences due to a worker's own "illness or disability" and "personal or family responsibilities") (Akyeampong, 1988, 1992 and 1995). Data from the 1991 and 1995 Survey of Work Arrangements (SWA) now support this hypothesis: work absence rates are indeed higher among employees without flexitime work arrangements (that is, schedules that permit, within limits, some variation of work start and end times), and among those whose collective agreements include paid sick leave and vacation entitlements (for details, see Appendix).

The redesign of the Labour Force Survey (LFS) in 1997 split the personal or family responsibility work absence code into sub-categories (maternity leave, caring for own children, caring for elder relative, and other personal or family responsibilities). As a result, it is now possible to produce work absence estimates that exclude maternity leave and hence are more relevant to those who rely on such statistics for their attendance management policies and practices.

The LFS enhancements also identified more types of worker than was previously possible. It is now possible, for example, to estimate work absence rates by union status, job permanency and firm size.¹

The work absence estimates given here and in a forthcoming statistical compendium (Akyeampong and



The Railway and Commercial Telegraph School, Ottawa, 1906

Usalcas) exclude maternity leave. Estimates for absences due to illness or disability are not affected by the change.

Work absence rates among full-time workers: An overview

In 1997, excluding women on maternity leave, an estimated 5.5% (489,000) of full-time employees missed some work each week for personal reasons: 4.1% for illness or disability and 1.4% for personal or family responsibilities (Table 1). As a result of these absences and their durations, 3.0% of full-time employees' usual work time was lost each week in 1997: about 2.5% to illness or disability and 0.5% to personal or family obligations. On average, each full-time employee lost 7.4 days over the year for personal reasons (about 6.2 for illness or disability and 1.2 for personal or family demands). In total, full-time employees lost an estimated 66 million workdays in 1997 (see *Data source, definitions and measurements*).

Variations in absence levels

Several underlying factors affect absence levels for various demographic groups, industries, occupations and provinces. The effect of any of these factors is difficult to measure. Family circumstances, especially the presence of pre-school aged children and other dependent family members, play a role. So too does the physical health of the worker, which is frequently related to age. Work environment, degree of job stress, employer-employee relations, union coverage and work schedules also have an effect.

These factors interact in a number of ways. Flexitime, for example, is associated with larger firms, as is union coverage. Paid sick leave, too, is more likely to be available through collective agreements and large employers. None of the simple comparisons presented (for example, absence rate differentials based on firm size) can measure the effect of only one variable. While some interactions are noted in this article, a multivariate

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analysis would be required to isolate the influence of each variable on absence rates. The following analysis is limited to differences in average days lost per worker. Differences in incidence and inactivity rates are shown in the tables.

Differences by selected demographic characteristics

In 1997, time lost for personal reasons averaged 6.3 days for men working full time, and 9.1 for women (Table 1). Women lost more work time than men for illness or disability (7.6 days versus 5.3) and personal or family responsibilities (1.5 versus 0.9). The presence of pre-school aged children tends to exert a strong influence on work absences for personal or family responsibilities, especially for women. Men in families with pre-schoolers lost 1.8 days for this reason – about twice the average for all men. For women, the days lost amounted to 4.2 – almost three times the level for all women.

Workdays lost for both men and women also tended to rise with age. For both sexes combined, youths (15 to 24 years) averaged slightly less than 5 days and workers aged 55 to 64 recorded close to 11. This increase can be attributed to illness or disability; days lost to personal or family responsibilities remained around one day per employee for most age groups, with the notable exception of women in their prime child-bearing years (25 to 44), whose level was approximately twice as high, at around 2 workdays in 1997.

Variations by industry and occupation

The nature and demands of a job, the sex composition of the workforce, and the percentage of employees belonging to a union or covered by a collective agreement all contribute to variations in work absence rates by industry and occupation.

Workdays missed for personal reasons were highest (at 8.9 each in 1997) for full-time workers in public administration and in transportation and communication – both highly unionized industries – and lowest in the less-unionized agriculture and trade industries (5.5 and 5.8, respectively) (Table 2). Absences due to illness or disability accounted for most of the difference, as variations in time lost to personal or family demands was minor (ranging from 1.0 for workers in manufacturing and trade to 1.4 days for those in public administration).

By occupation, too, differences arose mainly from time lost to illness or disability (Table 3). Persons in physically demanding and heavily unionized transport equipment operating jobs recorded the most days lost (10.4); those in sales jobs, the fewest (4.9). Workers in white-collar jobs as a group lost fewer workdays (6.7) than those in blue-collar and service jobs (8.4).

Table 1
Absence rates for full-time paid workers, by selected demographic characteristics, 1997

	Incidence *			Inactivity rate **			Days lost per year †		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
All employees (15+)	5.5	4.1	1.4	3.0	2.5	0.5	7.4	6.2	1.2
Men	4.6	3.4	1.2	2.5	2.1	0.4	6.3	5.3	0.9
In families with pre-schoolers	4.9	3.0	1.9	2.4	1.7	0.7	5.9	4.2	1.8
Women	6.7	5.1	1.7	3.7	3.0	0.6	9.1	7.6	1.5
In families with pre-schoolers	8.6	5.1	3.5	4.7	3.0	1.7	11.7	7.5	4.2
Both sexes									
15 to 19	4.1	2.9	1.3	1.8	1.5	0.3	4.6	3.7	0.9
20 to 24	4.6	3.2	1.4	2.0	1.5	0.5	5.0	3.9	1.1
25 to 34	5.4	3.7	1.7	2.5	1.9	0.6	6.2	4.7	1.4
35 to 44	5.6	4.2	1.5	3.1	2.6	0.5	7.6	6.4	1.2
45 to 54	5.7	4.6	1.1	3.6	3.2	0.4	8.9	7.9	1.0
55 to 64	6.2	5.2	1.0	4.4	4.0	0.4	10.9	10.0	0.9

Source: Labour Force Survey, annual average

* Absent workers divided by total employed.

** Hours absent divided by hours usually worked.

† Inactivity rate multiplied by working days in year (250).

Data source, definitions and measurements

Most of the data in this article are annual averages from the Labour Force Survey (LFS). The data refer to full-time paid workers holding only one job. Part-time, self-employed and unpaid family workers are excluded, because they generally have more opportunity to arrange their work schedules around personal or family responsibilities. Multiple jobholders are excluded because it is not possible, using LFS data, to allocate time lost, or the reason for it, to specific jobs. Women on maternity leave are also excluded. Employed persons on long-term illness or disability leave (exceeding one year) are included.²

Personal reasons for absence are split into two categories: own illness or disability, and personal or family responsibilities (caring for own children, caring for elder relative, and other personal or family responsibilities) (see *Reasons for work absences in the LFS*). Absences for these two reasons repre-

sented about 27% of all time lost by full-time paid workers each week in 1997. Vacations, which accounted for about 49% of total time away from work, are not counted in this study, nor are statutory holidays, which represented 11%. Maternity leave and other reasons represented 7% each.

The **incidence of absence** is the percentage of full-time paid workers reporting some absence in the reference week. In calculating incidence, the length of work absence – whether an hour, a day, or a full week – is irrelevant.

The **inactivity rate** shows hours lost as a proportion of the usual weekly hours of full-time paid workers. It takes into account both the incidence and length of absence in the reference week.

Days lost per worker are calculated by multiplying the inactivity rate by the estimated number of working days in the year (250).

Differences by province

Work absence levels also vary by province. Once again, most variations in work time lost can be traced to illness or disability, though some are explained by personal or family responsibilities: in New Brunswick and Saskatchewan the latter differed considerably from the overall level of 1.2 days (at 0.8 and 1.6, respectively) (Table 4). For both reasons combined, full-time workers in British Columbia and Quebec recorded as many as 8.8 and 8.4 days lost. At the other end of the spectrum, those in Alberta recorded just 6.5 days lost and in Ontario, 6.6.

Differences by union status, firm size and job permanency

It is now possible to estimate work absence rates according to union status, firm size and job permanency. LFS data show that full-time workers who belonged to unions and/or were covered by collective agreements

Table 2
Absence rates for full-time paid workers by industry, 1997

	Incidence *			Inactivity rate **			Days lost per year †		
	Total	Illness or disability	Personal or family responsibilities	%	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability
All industries	5.5	4.1	1.4	3.0	2.5	0.5	7.4	6.2	1.2
Goods-producing industries	5.2	3.8	1.4	2.9	2.5	0.4	7.3	6.2	1.1
Agriculture	4.3	3.0	--	2.2	1.8	--	5.5	4.6	--
Other primary	4.5	3.2	1.3	2.7	2.2	0.5	6.8	5.5	1.3
Manufacturing	5.5	4.1	1.4	3.1	2.7	0.4	7.7	6.7	1.0
Construction	4.4	3.1	1.3	2.5	2.1	0.5	6.3	5.1	1.2
Utilities	4.9	3.3	1.6	2.5	2.0	0.5	6.2	4.9	1.3
Service-producing industries	5.4	4.1	1.4	2.9	2.4	0.5	7.3	6.1	1.2
Transportation and communication	5.6	4.4	1.2	3.6	3.1	0.5	8.9	7.6	1.3
Trade	4.8	3.4	1.4	2.3	1.9	0.4	5.8	4.8	1.0
Finance, insurance and real estate	4.9	3.4	1.4	2.4	1.9	0.5	6.0	4.7	1.3
Services	5.8	4.4	1.4	3.1	2.6	0.5	7.9	6.6	1.3
Public administration	6.9	5.2	1.7	3.6	3.0	0.6	8.9	7.5	1.4

Source: Labour Force Survey, annual average

* Absent workers divided by total employed.

** Hours absent divided by hours usually worked.

† Inactivity rate multiplied by working days in year (250).

Table 3
Absence rates for full-time paid workers by occupation, 1997

	Incidence *			Inactivity rate **			Days lost per year †		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
		%			%			%	
All occupations	5.5	4.1	1.4	3.0	2.5	0.5	7.4	6.2	1.2
White-collar	5.4	3.9	1.5	2.7	2.2	0.5	6.7	5.4	1.3
Managerial/administrative	4.8	3.3	1.5	2.2	1.7	0.5	5.4	4.2	1.2
Professional	5.8	4.5	1.3	3.2	2.6	0.5	7.9	6.6	1.3
Clerical	6.1	4.4	1.7	3.0	2.4	0.6	7.5	6.1	1.4
Sales	4.1	2.9	1.2	2.0	1.6	0.4	4.9	4.0	1.0
Service	5.5	4.3	1.2	3.4	2.9	0.4	8.4	7.3	1.1
Blue-collar	5.7	4.4	1.3	3.4	2.9	0.4	8.4	7.3	1.1
Primary	4.4	3.3	1.1	2.6	2.2	0.4	6.6	5.6	1.0
Processing, machining and fabricating	6.0	4.5	1.4	3.3	2.9	0.4	8.4	7.4	1.0
Construction	5.0	3.7	1.3	3.0	2.5	0.5	7.5	6.4	1.2
Transport equipment operating	6.1	4.9	1.2	4.2	3.6	0.5	10.4	9.1	1.3
Material handling and other crafts	5.9	4.7	1.2	3.4	3.0	0.4	8.5	7.5	1.0

Source: Labour Force Survey, annual average

* Absent workers divided by total employed.

** Hours absent divided by hours usually worked.

† Inactivity rate multiplied by working days in year (250).

Table 4
Absence rates for full-time paid workers by province, 1997

	Incidence *			Inactivity rate **			Days lost per year †		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
		%			%			%	
Canada	5.5	4.1	1.4	3.0	2.5	0.5	7.4	6.2	1.2
Newfoundland	5.0	3.7	1.3	3.0	2.4	0.6	7.4	6.0	1.4
Prince Edward Island	5.5	4.0	1.4	3.1	2.6	0.5	7.7	6.4	1.3
Nova Scotia	5.3	4.1	1.2	2.8	2.4	0.4	7.1	6.1	1.0
New Brunswick	5.0	4.1	1.0	2.9	2.6	0.3	7.3	6.5	0.8
Quebec	5.7	4.5	1.2	3.4	3.0	0.4	8.4	7.4	1.0
Ontario	5.0	3.6	1.4	2.6	2.2	0.5	6.6	5.4	1.1
Manitoba	6.4	4.7	1.6	3.2	2.7	0.5	8.0	6.6	1.3
Saskatchewan	6.3	4.4	1.9	3.0	2.3	0.6	7.4	5.8	1.6
Alberta	5.5	3.9	1.6	2.6	2.1	0.5	6.5	5.1	1.3
British Columbia	6.4	4.8	1.6	3.5	2.9	0.6	8.8	7.3	1.5

Source: Labour Force Survey, annual average

* Absent workers divided by total employed.

** Hours absent divided by hours usually worked.

† Inactivity rate multiplied by working days in year (250).

Table 5

Absence rates for full-time paid workers by firm size, union status and job permanency, 1997

	Incidence *			Inactivity rate **			Days lost per year †		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
%									days
All firms	5.5	4.1	1.4	3.0	2.5	0.5	7.4	6.2	1.2
Under 20 employees	4.8	3.3	1.5	2.5	2.0	0.5	6.2	4.9	1.3
20 to 99 employees	5.5	4.2	1.4	2.9	2.5	0.4	7.3	6.2	1.1
100 to 500 employees	5.9	4.6	1.3	3.3	2.9	0.5	8.3	7.2	1.1
Over 500 employees	6.2	4.8	1.4	3.6	3.1	0.5	9.0	7.8	1.2
Union status									
Union member or covered by collective agreement	7.1	5.7	1.4	4.3	3.8	0.5	10.7	9.4	1.3
Not a union member	4.6	3.2	1.4	2.2	1.8	0.4	5.6	4.5	1.1
Job status									
Permanent	5.6	4.2	1.4	3.0	2.6	0.5	7.6	6.4	1.2
Non-permanent	4.5	3.1	1.4	2.2	1.7	0.5	5.4	4.2	1.2

Source: Labour Force Survey, annual average

* Absent workers divided by total employed.

** Hours absent divided by hours usually worked.

† Inactivity rate multiplied by working days in year (250).

missed almost twice as many workdays for personal reasons as their non-unionized counterparts (10.7 versus 5.6) (Table 5). Absences due to illness or disability accounted for most of the difference. This is not surprising, since most, if not all, collective agreement provisions include paid sick leave entitlements.

Full-time workers who considered their jobs to be permanent (who were also more likely to be unionized) lost on average more workdays for personal reasons (7.6) than those who said their jobs were not permanent (5.4).

Days lost for personal reasons also tended to increase with firm size. They ranged from a low of 6.2 in firms with fewer than 20 employees to a high of 9.0 in firms with more than 500 employees. This is also to be expected, given that the likelihood of union coverage (and paid sick leave entitlement) rises with firm size (Akyeampong, 1997).

Time lost for personal or family responsibilities was around 1.1 to 1.3 days, regardless of workers' union status or job permanency and regardless of the size of firm in which they were employed.

Conclusion

Recent initiatives undertaken by Statistics Canada have improved the quality, diversity, usefulness, and understanding of the Agency's data on work absences. In particular, the splitting of the absence code for personal or family responsibilities now permits the removal of maternity leave so that more useful estimates can be provided to managers and human resources staff. Similarly, there is now some evidence that union coverage, job permanency, and availability of paid sick leave entitlements and flexitime work options do indeed have an effect on work absence levels.

Absences due to illness or disability appear to be on the rise. They have inched up from 6.0 days per full-time employee in 1993 to 6.2 days in 1997. The aging of the workforce may be one factor. Increased availability of paid sick leave entitlements (if this is truly the case) may be another.³ And, as many believe, growing stress in the workplace as a result of corporate restructuring and downsizing may also be having an effect.

With maternity leave removed, 1997 work absence rates for personal or family responsibilities were similar for most worker groups, at around 1.0 to 1.5 days. The only exceptions were those for workers in families with preschoolers. For these people the rates were higher, especially among women (4.2 days versus 1.8 for men), implying that women still face greater challenges in balancing work and family responsibilities. □

Reasons for work absences in the LFS

The earlier version (pre-1997) of the LFS grouped the reasons for being away all or part of the week as follows:

- illness or disability
- personal or family responsibilities
- weather (part-week absence)
- labour dispute
- vacation
- holiday (part-week absence)
- working short time (part-week absence)
- laid off during week
- new job started during week
- seasonal business (full-week absence)
- other

Previous studies referred to the first two reasons as absences from work for personal reasons.

Reasons for time lost to illness or disability included medical or dental appointments and other temporary health-related absences. Absence for personal or family responsibilities included taking care of children, attending funerals, appearing in court, serving on a jury, and taking care of a sick family member. Longer absences, such as maternity leave, were also included.

The redesigned LFS, whose 1997 estimates are used in this study, sets out the following reasons for being away from work:

- own illness or disability
- caring for own children
- caring for elder relative (60 years or older)
- maternity leave (women only)
- other personal or family responsibilities
- vacation
- labour dispute (strike or lockout)
- temporary layoff due to business conditions
- holiday (legal or religious)
- weather
- job started or ended during week
- working short time (because of material shortages, plant maintenance or repair, for instance)
- other

Illness or disability remain unchanged, and personal or family responsibilities now consist of caring for own children, caring for elder relative and other personal or family responsibilities.

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Notes

1 Though Statistics Canada has, under the *Corporations and Labour Unions Returns Act* (CALURA), collected and published union data for more than 30 years, it was impossible to generate meaningful absence rates from these data.

2 Some human resources practitioners exclude persons on long-term illness or disability leave (exceeding one year) from their attendance management statistics. Such persons are, however, included in the Agency's work absence estimates if they

count themselves as employed (that is, they continue to receive partial or full pay from their employer). In 1997, the number of employed persons on such long-term illness or disability leave averaged only 13,000 in a typical week. Their exclusion would have reduced the weekly work absence incidence for illness or disability from 4.1% to 4.0%, the inactivity rate from 2.5% to 2.3%, and days lost per worker from 6.2 to 5.9.

3 The 1995 SWA marks Statistics Canada's first comprehensive data on paid sick leave entitlements. For details on this and other non-wage benefits in the workplace, see Akyeampong (1997).

Appendix

LFS redesign; development of the SWA

Unanticipated needs for survey data often arise only after a survey has been designed. Nevertheless, because users can see some useful proxies to their required information, they come to rely on the survey's findings. When the survey is later revised, their applications of the data can often be better accommodated.

This is exactly how the work absence data from the LFS evolved. The previous survey redesign in 1975 took place long before a user community for this information emerged. That response, in the late 1980s, inspired some of the most recent revisions to the survey.

Specifically, prior to 1997, the personal or family responsibilities category had included maternity leave, a reason for absence not usually addressed by attendance management policies. Various studies had consistently drawn attention to the problem of including this sub-category (Akyeampong, 1988, 1992 and 1995; Statistics Canada, 1995). The revision also created additional sub-categories: caring for own children, caring for elder relative, and other personal or family responsibilities (see *Reasons for work absences in the LFS*).

The elimination of maternity leave from the statistics led to an overall decline in work absence estimates for personal or family responsibilities, particularly for some groups of women. The overall weekly incidence dropped from 2.2% to 1.4%. And since maternity leaves are more likely to be full-week absences, the declines in the inactivity rate, or days lost per worker, were even greater (see *Data source, definitions and measurements*).

Data from the redesigned LFS show that 75,000 women were on maternity leave in a typical week in 1997. This is higher than the aggregate of women who were absent to care for their own children (12,000) or an elder relative (slightly over 1,000), or for other personal or family responsibilities (48,000).

Unfortunately, improvements do not come without a price. Since the pre-1997 estimates could not be adjusted to conform to the changes, the old time series had to be abandoned and a new one started with the estimates given here and elsewhere (Akyeampong and Ussalcas, forthcoming). The redesign involved no changes to the own illness or disability code.

The need to substantiate statements about work absences for personal reasons was an underlying consideration in the development of the Survey of Work Arrangements (SWA), conducted as a Supplement to the Labour Force Survey in November 1991 and again in November 1995. (The latter was funded by Human Resources Development Canada.) For example, it had been argued that a person with a flexible work arrangement could simply adjust his or her start and end work times, rather than call in absent in order to see a physician. Thus, persons with such work schedules would be expected to have lower absence rates. Similarly, all things being equal, persons with paid sick leave entitlements would be expected to miss more workdays for sickness than someone who would have to forfeit wages.

Indeed, according to the 1995 SWA, workers with flexitime work arrangements were less likely to report missing some work during the survey reference week because of their own illness or disability than people without such an option (3.4% versus 4.0%). In the same reference week, 4.3% of employees with paid sick leave reported such an absence, compared with 3.2% of those without such entitlements.

An international comparison of employee training

Constantine Kapsalis

There is increasing recognition that skills development is a lifelong process. Employees enter the labour force with skills acquired primarily through their initial schooling. Over their working lives, they maintain and upgrade their education "stock" through a "flow" of training, reinforced by practical experience. Put simply, in the same way that capital needs continuous investment to replace what has been depreciated and to meet new production requirements, employees also need an ongoing flow of training investment to maintain and upgrade their skills.

Canada has a strong education record. Along with the United States, it has the highest percentage of employees with some postsecondary education, almost double that of countries like Germany, the Netherlands or Switzerland. However, some believe that "Canadian industry is not making adequate investments in training" (Betcherman, 1992).

In the past, it has been difficult to compare Canada's training effort with that of its competitors. Despite the importance of international comparisons, "little is actually known on basic empirical questions such as what the extent and nature of training actually are.... This state of affairs is due partly to the complexity of the issues and partly to the limited availability of training statistics. It is also due to the quality of the data currently available" (OECD, 1991).

Adapted from Employee Training: An International Perspective, published by Statistics Canada (Catalogue no. 89-552-MPE, no. 2). Constantine Kapsalis is with Data Probe Economic Consulting Inc. He can be reached at (613) 726-6597, or kapsalis@magi.com.



Typing class, London, Ontario

This article uses data from the 1994 International Adult Literacy Survey (IALS) to examine employee training in the seven participating countries: Canada, the United States, Switzerland, the Netherlands, Poland, Germany, and Sweden. The IALS is the first major effort to gather consistent international data on literacy and training (OECD and Statistics Canada, 1995). For the first time, it is possible to address important literacy and training questions without being hampered by a lack of comparable training data (see *About the survey*). (For another source of Canadian data, see *Adult Education and Training Survey*.)

The results presented here are from the Canadian perspective. However, the objective of the study is not simply to see how well Canada is doing relative to the other countries, but also to find out what lessons can be learned from the combined experiences of different countries.

Training effort

Training effort is often measured in terms of incidence (percentage of employees who received training) and hours of training per *trainee*. A more comprehensive gauge of training effort over time and across countries is average training hours per *employee*.²

In this respect, Canada's training effort relative to that of other countries surveyed was average. The average Canadian employee received 44 hours of training in 1994 (Table 1). This includes all types of training: employer-supported, government-supported, and self-supported. Average hours per employee were similar to those in Switzerland, the United States and Germany, but considerably less than those in the Netherlands (74 hours per employee).³

Hours of training per employee in Canada and the United States in 1994 were virtually identical. This comparison is important because of the

About the survey

The IALS, conducted during the autumn of 1994, combined the techniques of household-based surveys with those of educational testing. One of the background questions determined each respondent's training history:

"During the past 12 months, that is, since August 1993, did you receive any training or education including courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses or any other training or education?"

Respondents were then given open-ended test questions in the official language of their country (a choice was provided to participants in Canada and Switzerland). Statistics Canada's experience with bilingual questionnaires aided in the design of this project. If respondents were unable to speak the designated language, efforts were made to complete the background questionnaire to allow estimates of their literacy levels and to reduce the possibility of distorted results.

Representative samples of the civilian, non-institutionalized population

aged 16 to 65 were drawn from each country. Canada and some other countries also included older adults. Sample yields ranged from 2,062 (Germany) to 4,500 (Canada).

As the focus of this article is on the lifelong training of employees, the sample has been restricted to full-time employees between 25 and 60 who worked at least 42 of the last 52 weeks preceding the survey.¹ The self-employed, although a growing share of the workforce, are not included in the analysis since the article looks at employer-supported training.

**Table 1
Selected training statistics, 1994**

	All training			Employer-supported		
	Incidence	Per trainee	Per employee	Incidence	Per trainee	Per employee
		%	hours		hours	hours
Netherlands	48	154	74	38	138	52
Switzerland	46	110	50	29	85	24
United States	53	86	45	42	69	29
Canada	43	104	44	33	83	27
Germany *	23	181	42	...	...	...
Poland	24	157	29	17	118	16
Sweden **	62	..	..	..	..	..
Employee-supported						
	Employee-supported			Government-supported		
	Incidence	Per trainee	Per employee	Incidence	Per trainee	Per employee
		%	hours		hours	hours
Netherlands	14	156	21	3	--	--
Switzerland	22	106	23	7	--	--
United States	12	108	13	4	--	--
Canada	15	121	18	5	--	--
Germany *	...	...	...	...	...	...
Poland	6	259	14	1	--	--
Sweden **	..	..	..	..	..	..

Source: International Adult Literacy Survey, 1994

Notes: May not add to totals because some training may be supported by more than one source, or sources not specified. Order of countries is based on hours per employee for all training.

* Source of training support was collected, but the data are not comparable.

** Data include the self-employed. No data were collected for hours of training or source of training support.

countries' extensive trade links. Also, Canada-U.S. comparisons are more meaningful than those with other countries because of the similarities between the two countries—including the extensive use of postsecondary education. By contrast, comparisons with European countries may be more useful as broad indicators than as precise measures.

Sources of support

The two most common sources of financial support for training were employers and employees themselves. Government-supported training was considerably less frequent. In general, employer-supported training covered more employees than did employee-(or self-) supported training, but it involved fewer hours per trainee. In all countries, in terms of average hours per employee, employer-supported training exceeded self-supported training.⁴

In the case of Canada, 33% of employees received employer-supported training, while 15% received training on their own (Table 1). A much smaller percentage (5%) received government-supported training. On average, employer-supported training involved fewer hours than employee-supported training (83 versus 121 hours per trainee).⁵

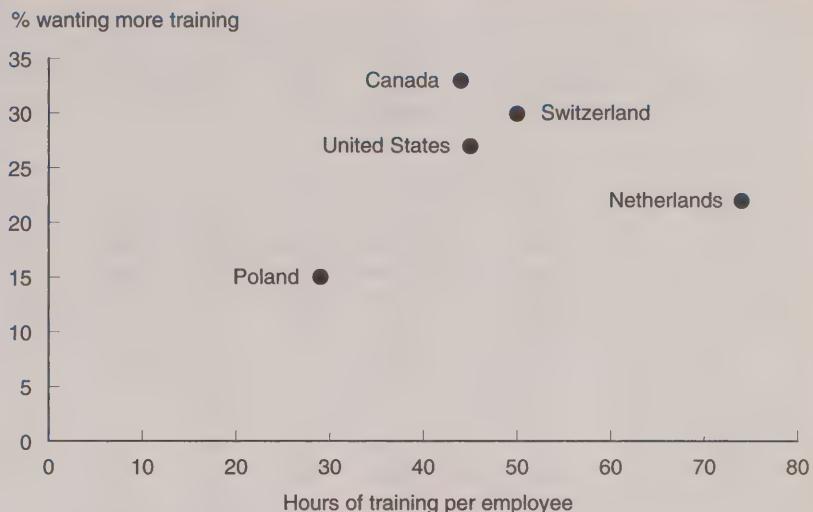
Canada's balance between the two types of training, in terms of average hours per employee, was also similar to the average for other countries covered in the survey. Canadian employees tended to receive somewhat more training on their own, while Americans obtained more through their employers.

Demand for training

Overall, Canada had the highest incidence of employees who wanted more training for career- or job-related reasons (33%). The explanation for this is far from simple, but it could mean at

Chart

One-third of Canadian employees want more training.



Source: International Adult Literacy Survey, 1994

Note: Information was not collected for Germany or Sweden.

least two things: the lower the level of training, the greater the amount of unfulfilled demand for training; and the more training employees receive, the more they tend to want. Regardless of the interpretation, Canadian employees do seem more willing to undertake further training than those in other countries (Chart and Table 2).

Training and employee characteristics

The relationship between the incidence of training and employee characteristics was similar in all seven countries. Furthermore, groups with a higher incidence of employer-supported training often had a higher incidence of self-supported training, perhaps a reflection of these workers' perception of their need for training.

Women and employees in small firms generally received less employer-supported training than men or employees of large firms. This

was the case for all participating countries. In spite of being more likely to report a preference for more training, employees in these two groups received relatively less support.

Finally, in all countries, level of education, level of literacy and incidence of training were strongly linked in a "virtuous cycle" (Figure).

Conclusion

Analysis of the IALS data shows that Canada has strengths in the area of education and training on which it can build. These strengths include a high percentage of employees who would like more career- or job-related training.

Employers play an important role in promoting training. However, self-employed and contingent employees, who make up a growing share of the labour force, typically do not benefit from employer-supported training. Moreover, this training tends to be

Table 2
Incidence of training by employee and job characteristics, 1994

	Age			Sex		Education *		Document literacy *		Company size		Wages *	
	25-34	35-44	45-60	Men	Women	Low	High	Low	High	<100	100+	Low	High
% of employees													
All training													
Netherlands **	54	48	41	47	54	45	61	36	54	..	..	44	52
Switzerland	54	48	37	46	48	42	64	33	56	38	52	36	55
United States	53	54	52	51	54	37	71	37	64	39	59	53	70
Canada	47	51	30	45	39	31	56	27	50	41	44	31	49
Germany	26	24	20	21	29	20	34	13	28	19	27	24	25
Poland	27	24	20	23	25	18	44	20	35	23	25	19	31
Sweden **	62	64	61	59	67	57	73	50	65	..	..	58	64
Employer-supported													
Netherlands **	41	40	33	39	35	35	49	26	43	..	..	31	44
Switzerland	31	28	27	30	26	26	41	21	35	21	35	20	36
United States	41	44	42	42	42	29	57	28	52	26	49	40	60
Canada	35	40	25	36	28	23	45	18	40	27	35	23	38
Germany ***	...	...	...	...	...	...	...	...	...	...	...	...	...
Poland	18	18	16	18	16	15	27	15	24	15	20	13	24
Sweden †	..	..	..	..	..	..	..	..	..	..	..	..	..
Employee-supported													
Netherlands **	19	11	8	10	25	12	18	11	14	..	..	17	11
Switzerland	31	24	12	19	29	21	28	14	28	21	23	22	22
United States	14	11	12	12	12	5	20	6	16	14	11	12	19
Canada	22	17	8	15	16	7	24	9	18	19	14	14	17
Germany ***	...	...	...	...	...	...	...	...	...	...	...	...	...
Poland	10	5	3	5	8	3	19	3	14	8	4	6	7
Sweden †	..	..	..	..	..	..	..	..	..	..	..	..	..
Want more job-related training													
Netherlands **	26	22	15	20	27	20	27	19	23	..	..	21	23
Switzerland	34	33	21	29	31	30	27	29	30	31	29	30	31
United States	30	30	22	26	29	21	35	20	32	27	28	27	36
Canada	36	36	27	31	35	28	38	33	32	43	29	32	32
Germany ††	..	..	..	..	..	..	..	..	..	..	..	..	..
Poland	18	16	12	16	15	11	30	12	23	14	17	14	19
Sweden ††	..	..	..	..	..	..	..	..	..	..	..	..	..

Source: International Adult Literacy Survey, 1994

Note: Order of countries is based on hours per employee for all training.

* See note 6.

** Information was not collected on company size for the Netherlands or Sweden.

*** Source of training support was collected, but the data are not comparable.

† Data include the self-employed. No data were collected for hours of training or source of training support.

†† Information was not collected for Germany or Sweden.

geared to present job requirements, while much of the demand for training comes from individuals who know they must upgrade their skills for new jobs. This suggests that public education institutions will be under increasing pressure to meet the training needs of the workforce.

Two areas that require further study are employer-supported training of female employees and of workers in small businesses. Both issues are complex. For example, the gender gap in employer-supported training may reflect the concentration of women in certain occupations, as well as the conflict between workplace and family demands. Similarly, the lower incidence of such training in small businesses may reflect, for example, a higher reliance on informal on-the-job training, or the absence of a formal human resource function. □

Acknowledgements

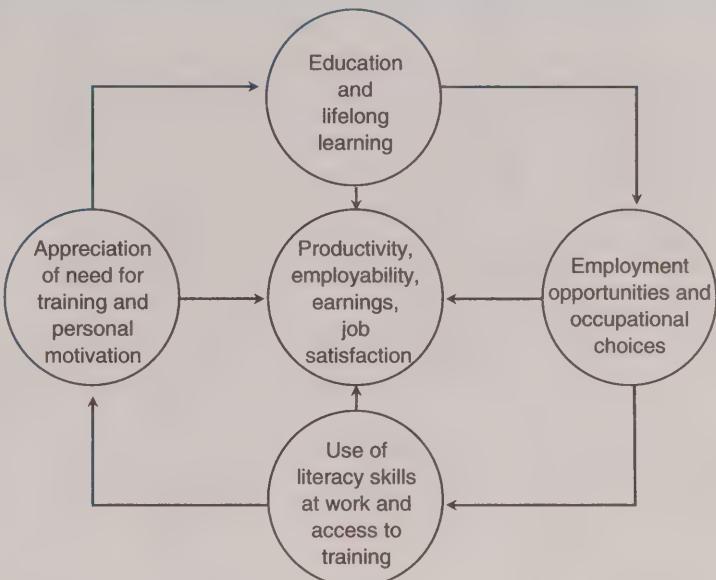
The author wishes to thank the following people for their constructive comments: Doug Giddings and Philip Jennings of Human Resources Development Canada, Andrew Sharpe of the Centre for the Study of Living Standards, Ismo Heikkila of Watson Wyatt Canada, and Jeffrey Smith of Statistics Canada.

Notes

1 The objective of the age cut-off was to exclude employees who may still have been students, and employees who were nearing retirement. The 42-week employment cut-off was meant to ensure that employees had an employer most of the year.

2 "Hours per employee" is the incidence rate multiplied by average hours of instruction per trainee. For example, if the incidence rate is 25% and the average hours per trainee is 400, the average hours of training per employee will be 100.

**Figure
The education-literacy-work virtuous cycle**



The education-literacy-work virtuous cycle

Employees with better education and training have a better chance of securing better-paying jobs demanding more skills. This background allows them to use their skills at work, and provides better access to employer-supported training. Jobs requiring more skills also create a stronger appreciation of the importance of training, which is a key motivator for taking further training and education. The above virtuous cycle is usually reinforced by the interaction of literacy skills used at work and at home.

Hours per employee is a more comprehensive measure because it combines information on both the extent (incidence) and intensity (hours per trainee) of training.

3 Also, Canada's training effort was probably less than Sweden's. The latter had the highest incidence of training. However, no information exists on that country's hours of training, which would be necessary for a complete assessment of its training effort.

4 No information was available on training support for Sweden. Information for Germany was available but not comparable with that for the other countries.

5 Because of sample limitations, it was not possible to estimate the average hours of government-supported training.

6 Because of institutional differences between countries, and sample size limitations, the education codes were collapsed into two broad categories: low corresponds roughly to secondary education or less; high corresponds roughly to postsecondary education.

Document literacy refers to the knowledge and skills required to locate and use information in various formats, including job applications, payroll forms, transportation schedules, maps, tables and graphics. These tasks were scored on a scale from 0 to 500. Low scores were from 0 to 275; high scores were from 276 to 500.

Wages are expressed as either low (first three quintiles) or high (fourth and fifth quintiles).

Adult Education and Training Survey

The Adult Education and Training Survey (AETS), a supplement to the regular Labour Force Survey, has been sponsored by Human Resources Development Canada, and conducted by Statistics Canada, a number of times. The 1994 survey, which covered activities during 1993, provided some findings similar to the IALS. Details can be found in Couillard et al. (1997), de Broucker (1997) and Kapsalis (1996). The survey collected information on education and training activities of people aged 17 and over. The report on the survey focused more on job-related education or training and excluded students enrolled full time in certificate, diploma or degree programs (unless they were supported by their employer). Although the two surveys' definitions, age groups and scope differ, some of the AETS results parallel those of the IALS and are presented below.

Total training effort

According to the AETS, 5.8 million or 28% of Canadians aged 17 and over participated in adult education or training activities in 1993. On average, participants engaged in 103 hours per trainee, or about 29 hours per Canadian adult overall. For those employed full time, the participation rate was 39% and the number of hours of training per trainee was 88 on average – or 34 per full-time employee.

Support for job-related training

More than 4 million Canadians took part in some form of *job-related* training in 1993. This represented 20% of the population aged 17 and over. Among those employed full time, 31% reported taking job-related education or training in 1993. To break this down

further, 25% of full-timers received some support from their employer for their job-related training (that is, employer-sponsored), while 6% received no assistance (non employer-sponsored).

Desire for training

The AETS found that 26% of Canadians had unsatisfied training wants in 1993. A higher proportion of those already participating in training expressed this opinion (37%) than did non-participants (21%). Women were more likely than men to make this claim (29% versus 23%). Among training participants, 41% of women and 32% of men had unsatisfied training wants.

Training by characteristics of employees

Like the IALS, the AETS found that workers' participation in job-related training diminished with age: 25 to 34, 30%; 35 to 44, 31%; 45 to 54, 27%; 55 to 64, 12%. However, unlike IALS, the AETS found little difference in rates for working men (26%) and working women (27%). Workers with more education were more likely to engage in such training: 0 to 8 years, 6%; some secondary, 14%; high school graduation, 22%; some postsecondary, 36%; postsecondary certificate or diploma, 33%; university degree, 41%. According to the AETS, job-related training participation is also positively related to company size: under 20 employees, 19%; 20 to 99, 26%; 100 to 199, 36%; 200 to 499, 33%; 500 and over, 42%. Finally, workers with higher incomes had higher rates (selected results): less than \$15,000, 20%; \$25,000 to \$29,999, 27%; \$40,000 to \$49,999, 37%; \$60,000 to \$74,999, 52%.

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RRSP contributions and withdrawals: An update

Ernest B. Akyeampong

Annual contributions to registered retirement savings plans (RRSPs) rose from an estimated \$15.0 billion in 1991 to \$26.2 billion in 1996. This represented an increase of 74%. Over the same period, the number of contributors to RRSPs increased from an estimated 4.7 million to almost 6 million, a rise of 28%. Withdrawals from RRSPs also rose, but at a slower pace. They increased from \$3.2 billion to \$4.4 billion, a jump of 39%.

This study briefly examines some of the factors underlying growth in RRSP contributions in recent years. It also explains how, and why, the composition of total contributions has changed. Regional differences in RRSP participation are examined for 1995, the latest year for which data are available. The article concludes with a few remarks on withdrawals.

Factors underlying growth in contributions

Several factors are responsible for the growth of RRSP contributions. Changes to the *Income Tax Act* in 1990, which increased RRSP contribution opportunities for most taxfilers (Frenken and Maser, 1993), have had an effect,¹ as have improvements in the economy – notably the growth in employment since 1993. Growing uncertainty about the future of the government-sponsored Canada and Quebec Pension Plan (C/QPP) and Old Age Security/Guaranteed Income Supplement programs, and more effective marketing strategies by financial institutions, have encouraged greater RRSP participation. Finally, lower participation in employer-sponsored registered pension plans in recent years and growth in group



Bank interior, early 1900s

RRSPs have also probably played a role. This interplay of factors has led to the increase in both the number and percentage of taxfilers eligible to make normal RRSP contributions (RRSP eligibility rate). It has also spurred growth in the percentage of eligible taxfilers who make contributions (RRSP participation rate) and in the dollar amount they put aside.

Between 1991 and 1995, the RRSP eligibility rate rose from 75% to 80%. Over the same period, the RRSP participation rate increased from 32% to 35%, and the average amount contributed, from \$2,694 to \$3,537 (Chart). Despite these increases, RRSPs still remain underused by Canadians (Frenken, 1998).

Changing composition of RRSP contributions

RRSP contributions fall into three categories, whose proportions have shifted as a result of new legislation implemented in recent years.

The so-called “normal” contributions, namely, those charged against taxfilers’ available deduction limits

(RRSP room), have formed the largest component. These RRSPs have their origin in a 1957 amendment to the *Income Tax Act*. Thanks to the factors previously noted, normal contributions nearly doubled between the 1991 amendment to the Act and 1996, from \$12.3 billion to \$22.7 billion (Table 1).

The second category, commonly referred to as retiring allowance rollovers (tax-free transfers to RRSPs of certain types of lump sum amounts received by employees when they retire from or terminate work), were first permitted in 1966. A 1995 amendment now allows them only for service with an employer prior to 1996. Because the volume of these rollovers is dictated by layoff and retirement patterns, contributions rose considerably following extensive layoffs in the early 1990s, from \$2.0 billion in 1991 to \$3.4 billion in 1995. By 1996, they had reached \$3.5 billion. As a consequence of the 1995 amendment, this type of contribution is expected to disappear gradually.

The third category, generally known as spousal rollovers (the

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**Table 1
RRSP contributors and contributions, 1991 to 1996**

	Total		Normal contributions		Spousal rollovers		Retiring allowance rollovers	
	Contributors	Amount	Number	Amount	Number	Amount	Number	Amount
	'000	\$ millions	'000	\$ millions	'000	\$ millions	'000	\$ millions
1991	4,699	15,033	4,558	12,284	148	721	88	2,028
1992	4,892	16,439	4,739	13,533	160	781	95	2,125
1993	5,110	19,177	4,953	15,547	167	848	107	2,782
1994	5,425	21,268	5,265	17,436	166	861	118	2,971
1995	5,707	23,392	5,650	19,984	...	...	125	3,408
1996 ^p	5,996	26,200	5,930	22,700	...	...	130	3,500

Source: RRSP room file

Note: Retiring allowance rollovers for all years and spousal rollovers for 1994 have been revised from previous published data.

transfer of benefits from employer-sponsored pension plans to spouses' RRSPs), came into effect in 1974. Spousal rollovers rose from \$721 million in 1991 to \$861 million in 1994, the last year they were allowed. (For a fuller description of RRSP rollover opportunities and a look at how the legislation affecting them has changed in recent years, see Frenken, 1996b.)

The above-noted amendments have contributed to a change in the composition of total RRSP contributions over time. For example, in 1991 normal contributions accounted for approximately 82% of the total, retiring allowance rollovers 13%, and spousal rollovers 5%. By 1996, the disallowance of spousal rollovers had been offset by a similar percentage-point gain in normal contributions (then accounting for 87% of all contributions).

Provincial and territorial variations

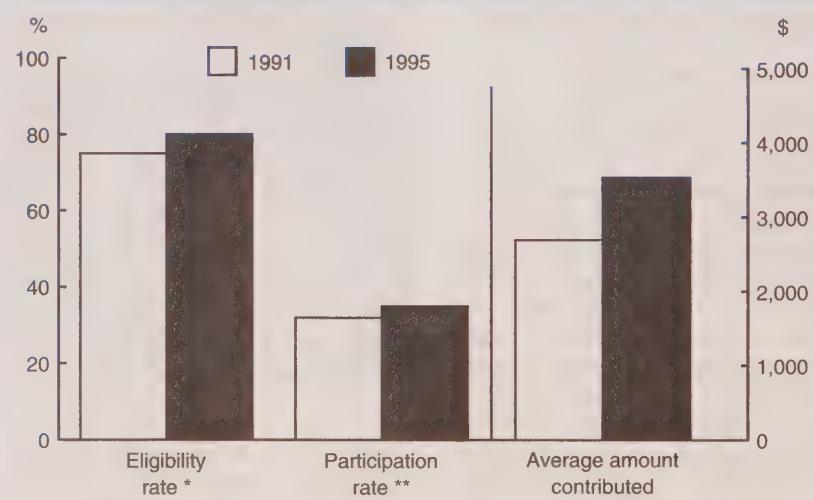
Past studies in *Perspectives* and elsewhere have shown that RRSP participation, as well as the average dollar amount contributed, varies by sex, age and income: contributions are generally higher among men, older workers and higher income groups

(Aldridge, 1997; Frenken, 1990; Maser, 1995). However, not much has been written about regional differences, even though the implications (for retirement incomes, and the marketing of RRSPs, for example) may be equally interesting. This update uses the most recent data available (1995) to examine regional participation

in RRSPs. The analysis is limited to normal contributions, which accounted for 85% of total contributions that year.

Factors affecting eligibility rates include sources of income and the suitability of such sources for RRSPs. All things being equal, regions whose

**Chart
Only 35% of those eligible participated in RRSPs in 1995.**



Source: RRSP room file

* Proportion of taxfilers with normal contribution room.

** Contributors to normal RRSPs as a percentage of eligible contributors.

residents depend more heavily on government transfers, an income category ineligible for RRSPs, might be expected to have lower eligibility rates. Conversely, regions where a larger proportion of residents have employment income would probably have higher eligibility rates.

Factors influencing participation rates include the savings habits of residents and their demographic composition (age, sex, income and educational attainment distribution), as well as the availability of RRSP contribution room. In addition, rates may be affected by the composition of the workforce (self-employed versus employee, private versus public sector). For example, the existence of more generous pension plans in the public sector could reduce or even eliminate the incentive for some of these workers to contribute to RRSPs.

Finally, the amounts set aside for normal contributions are influenced by income, demographic composition of each region, size of RRSP room, and extent of participation in an employer-sponsored pension plan, as well as by

the composition of the workforce. All things being equal, regions whose residents command higher employment earnings would likely make larger dollar contributions. Similarly, one would expect regions with higher employer-sponsored pension plan coverage to see RRSP contributions reduced by the pension adjustment (PA) factor.² With these points in mind, what were the regional differences in 1995?

According to the data, taxfilers in the Yukon and Northwest Territories had the highest RRSP eligibility rates. More than 90% of taxfilers in those two areas had RRSP room and hence were eligible to contribute (Table 2). The national rate was 80%. Among the provinces, eligibility was high in Alberta (84%) and Prince Edward Island (83%), and relatively low in Manitoba (77%).

In terms of RRSP participation rate, Saskatchewan, Alberta and British Columbia led the country at 38%, followed closely by Ontario (37%) and Manitoba (36%). Rates in Quebec (34%) and in each of the Atlantic provinces were below the national

average of 35%. In the Maritime provinces, only one in four eligible taxfilers contributed to RRSPs, and in Newfoundland, just one in five did. Despite their high eligibility, taxfilers in the Yukon and Northwest Territories participated at rates below the national average.

Although eligible taxfilers in the Territories were less inclined to contribute to RRSPs, those who did so set aside much more money than their counterparts in the rest of Canada. The average normal contribution in the Northwest Territories was \$4,632 in 1995, and in the Yukon, \$4,065. Contributions in British Columbia (\$3,875), Ontario (\$3,749) and Alberta (\$3,597) exceeded the national average (\$3,537). Average levels for those in the remaining provinces were lower than overall, especially in Manitoba (\$2,997) and Newfoundland (\$2,948).

Withdrawals

RRSP withdrawals by taxfilers under 65, traditionally regarded as the normal retirement age, are closely related to the health of the economy and to personal circumstances. They

Table 2
Normal RRSP eligibility, participation rates and average contributions, by province/territory, 1995

	All taxfilers '000	Eligible taxfilers '000	Eligibility rate* %	Contributors '000	Participation rate** %	Average amount contributed \$
Canada	20,028	16,047	80.1	5,650	35.2	3,537
Newfoundland	380	305	80.4	63	20.8	2,948
Prince Edward Island	93	77	83.0	19	24.6	3,113
Nova Scotia	632	502	79.4	135	27.0	3,101
New Brunswick	528	417	79.0	102	24.5	3,192
Quebec	4,995	3,948	79.0	1,323	33.5	3,174
Ontario	7,490	6,020	80.4	2,213	36.8	3,749
Manitoba	778	601	77.2	216	35.9	2,997
Saskatchewan	655	521	79.5	200	38.3	3,311
Alberta	1,824	1,534	84.1	583	38.0	3,597
British Columbia	2,577	2,060	79.9	777	37.7	3,875
Yukon	18	17	91.6	5	30.1	4,065
Northwest Territories	36	33	92.1	11	31.8	4,632

Source: RRSP room file

* Proportion of taxfilers with normal contribution room.

** Contributors to normal RRSPs as a percentage of eligible taxfilers.

are also affected by RRSP-related programs such as the Home Buyers' Plan begun in 1992 (Frenken, forthcoming).³ Between 1991 and 1996, withdrawals rose (from \$3.2 billion to \$4.4 billion) (Table 3), as did the number of persons making withdrawals (from 604,000 to 851,000, a rise of 41%). However, most of this occurred during a lean economic period. Total withdrawals have changed only slightly since 1994. And average withdrawals have remained virtually unchanged since 1991: from \$5,271 to \$5,212 in 1996.

Another way of describing how RRSP activity is tied to the economy is to show the withdrawal/contribution ratio (total withdrawals expressed as a percentage of total contributions). From 1991 to 1994, the ratio stood at around 20%; that is, for every five dollars contributed, one dollar was withdrawn. Since 1994, with continued improvements in the economy, it has declined. In 1996, it stood at 17%, meaning that for every five dollars put into the plan, 85 cents was removed.

Summary

Despite amendments to the *Income Tax Act* ending spousal rollovers and restricting retiring allowance rollovers, contributors and contributions to RRSPs continue to increase. The reasons for this are varied, but the amendment increasing contribution opportunities for most individuals, the economic upturn, growing concerns about the Canada and Quebec Pension Plan and the Old Age Security/Guaranteed Income Supplement programs, and financial institutions' effective promotion of RRSP participation, have all contributed. In contrast, withdrawals from RRSPs remained steady before 1995, at roughly one dollar for every five contributed, and have decreased slightly since then.

**Table 3
RRSP withdrawals and withdrawal/contribution ratios**

Year	Number	Amount	Withdrawal/contribution ratio *		
			'000	\$ millions	\$
1991	604	3,182	5,271	5,271	21.2
1992	635	3,403	5,363	5,363	20.7
1993	707	3,790	5,364	5,364	19.8
1994	775	4,240	5,473	5,473	19.9
1995	815	4,253	5,219	5,219	18.2
1996	851	4,437	5,212	5,212	16.9

Source: Small Area and Administrative Data Division, 1991 and 1992; RRSP room file, 1993 to 1996

Note: Withdrawals are for persons under 65, generally regarded as the normal retirement age.

* Total withdrawals expressed as a percentage of total contributions.

Participation and average amount contributed vary not just by sex, age and income, but also by region. In 1995, program participation rates for normal contributions were generally higher in the three westernmost provinces and lower in the Atlantic provinces. The rate for Ontario residents was above the national average, and that for Quebecers, slightly below. Average amounts contributed in British Columbia, Ontario, and Alberta exceeded the national average, but fell short in the remaining provinces.

Residents in the Territories presented a unique picture. Though they claimed the top two positions for eligibility rates and average contributions, their RRSP participation rates were lower than the national average. □

2 The PA is a calculated value of the pension credits earned by the taxfiler who participates in an employer-sponsored pension plan or deferred profit sharing plan. The inclusion of the PA in calculating RRSP room is intended to provide similar tax breaks to workers with or without such coverage.

3 Withdrawals under the Home Buyers' Plan are not reported on the income tax return. While they may have some effect on RRSP savings, they are excluded from the withdrawal amounts reported in this study. For details about the plan, see Frenken (forthcoming; and 1996a).

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Notes

1 These changes were implemented in 1991. Although the effect was most noticeable between 1990 and 1991, the ripple effects of the change (for example, the possibility of carrying over unused room) probably encourage people to contribute. (For more information, see Frenken and Maser, 1993.)

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Tapping unused RRSP room

Hubert Frenken

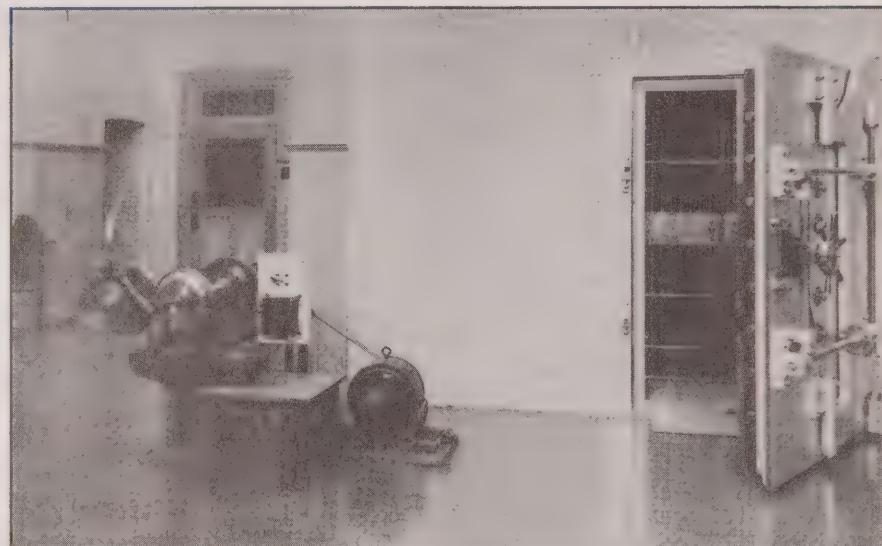
In 1997, over 19 million Canadians were eligible to contribute some \$216 billion to registered retirement savings plans (RRSPs), if they had the money and the inclination to do so. Each year nearly all individuals with "earned income" (income qualifying for RRSP purposes) are credited with a specific amount of RRSP contribution opportunity or "RRSP room." The amount of room is based on their earned income and their pension credits, if any (see *RRSP room*). Room not used in any year is reserved and added to the following year's new room. The \$216 billion is the sum of unused room from earlier years (\$168 billion) and new 1997 room (\$48 billion).²

Some questions have been raised about this large accumulation. First, is this an indication that some segments of the population may be inadequately preparing for retirement by using only a fraction of their RRSP room? Second, will it result in large future losses of government tax revenue as individuals start using up this room (Beauchesne, 1995)?

Are these concerns warranted? This article provides some insight into these issues by looking at how this room has accumulated since 1991 and examining the extent to which taxfilers used this accumulation in 1995.³

Growing and growing

Since 1991, both the number of individuals with RRSP room and the aggregate room have grown consistently (Table 1). However, while the number of taxfilers with room increased by a third from 1991 to 1997, the amount of room grew nearly five-fold to more than \$216 billion. Since



Stronghold door, Royal Canadian Mint, 1908

the number of individuals who made contributions increased at about the same rate as the number eligible to do so, the proportion of eligible taxfilers who contributed remained at about one-third throughout the period.⁴

However, the percentage of room used by contributors decreased from 27% in 1991 to 18% in 1992, continued to decline at a slower pace after that, and levelled off at 12% in 1996. The relatively high 1991 percentage is

RRSP room

The amount of new RRSP room made available each year has a ceiling: the lesser of 18% of the previous year's earned income or a dollar amount, less any pension credits, or pension adjustment (PA), earned by the taxfiler in the previous year.¹ For example, the 1995 new room was the lower of 18% of 1994 earned income or \$14,500 less the 1994 PA (if any). The dollar limit has been amended a number of times since 1991 and is now frozen at \$13,500 until the year 2004. From 1991 to 1996 it was as follows:

Year	\$	Year	\$
1991	11,500	1994	13,500
1992	12,500	1995	14,500
1993	12,500	1996	13,500

To determine which RRSP contributors tapped into previously accumulated unused room, a number of factors must be considered. First, only normal contributions are counted; that is, contributions subject to the standard deduction limits and not rollovers of certain types of income. Second, the presence of a PA must be determined. Third, the appropriate contribution ceiling must be identified.

In this analysis it was assumed that taxfilers with no PA used up some of their room from previous years if their 1995 normal contributions exceeded the amount of new room for that year, and that those with a PA did so if the sum of their PA and normal contributions exceeded the new room.

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attributable to the lack of unused room from previous years, because the new legislation came into force only that year. The 1996 levelling off can be partly explained by the reduction in the dollar limits on contributions from \$14,500 in 1995 to \$13,500. As a result, many taxfilers either added less to their RRSP room pool that year or used up a greater amount of previously accumulated room.

Who has this room?

Men, despite contributing at higher rates than women and using a slightly higher percentage of their available room, still account for the greatest share of available room. For example, they made nearly two-thirds of the 1995 normal contributions and used up 13% of their room that year (versus 11% for women). Yet nearly 62% of the 1996 room belonged to men.

Even though younger persons have been participating in greater numbers in recent years (Aldridge, 1997), they still have more unused room than older taxfilers. Taxfilers under 35 years of age held nearly one-third of the \$163 billion in 1995 room and those between 35 and 44 accounted for an additional one-third. Individuals in these two age groups used up just 8% and 12%, respectively, of the room available to them that year.

Income has always been the primary factor in people's decisions on whether and how much to contribute to RRSPs (Frenken and Maser, 1993; Frenken, 1995b). Those with low incomes, who seem to be contributing in greater numbers of late (Frenken, 1997), still account for the bulk of unused room. Taxfilers with less than \$30,000 total income in 1995 held nearly one-half of the room that year. In fact, 30% of the room belonged to persons with incomes under \$20,000. They used up less than 3% of their room that year, while those with incomes between \$20,000 and \$29,999 contributed only 8% of the amount available to them.

Table 1
Total RRSP room 1991 to 1997 *

	Taxfilers		Amount	
	Number with room	Percentage contributing **	Available	Used **
	'000	%	\$ millions	%
1991	14,364	32	45,345	27
1992	15,531	31	77,094	18
1993	16,264	30	106,904	15
1994	16,928	31	136,537	13
1995	17,525	32	162,715	12
1996	18,039	33	189,653	12
1997	19,115	..	216,367	..

Source: RRSP room file

* Includes each year's new room and unused room from previous years. Since 1991 was the implementation year of the new legislation, there was no unused room that year.

** The number of contributors and the amount used relate only to normal contributions and exclude rollovers. See note 4.

This low usage rate and extensive accumulation of RRSP room by Canadian workers with low incomes might lead to the conclusion that this segment of the population is inadequately preparing for retirement. Some of these individuals may have other assets to draw on in retirement, but most will have little need for extensive savings to replace pre-retirement earnings. Pensions from the Old Age Security/Guaranteed Income Supplement (OAS/GIS) program and the Canada and Quebec Pension Plan (C/QPP) will fully replace earnings for most people with low incomes over their careers (Department of Finance, 1995).⁵

Who uses it?

Not all taxfilers accumulate large amounts of unused room. Some take full advantage of their contribution opportunities on a regular basis, while others may allow some unused room to accumulate, but periodically contribute more than their new room to use up some of that accumulation.

In 1995, nearly 5.7 million taxfilers, 32% of the 17.5 million with RRSP room, contributed. More than 1.6 million, 29% of contributors, used at

least some of their previously accumulated room. More than 240,000 (4% of all contributors) reported either an RRSP contribution alone or a combination of PA and contribution that exceeded \$14,500. Moreover, almost 1.4 million or nearly 25% had a contribution or a combination of PA and contribution that was less than \$14,501 but greater than 18% of their previous year's earned income (Table 2). Only those persons with earned income over \$80,556 would have been limited by the \$14,500 ceiling. Relatively few people have that much income; therefore, by far the greatest number who contributed more than their new room that year surpassed the 18% limit.

The 1.6 million contributors who tapped their unused room in 1995 deposited nearly \$9.4 billion – 47% of the \$20 billion normal RRSP contributions that year. This \$9.4 billion was applied to both 1995 new room and unused room from previous years. In summary, even though 68% of taxfilers eligible to contribute to RRSPs in 1995 made no deposits, 32% (nearly 5.7 million) did, and of these, 29% used up some, but not necessarily all, of their room from previous years.

**Table 2
Taxfilers who used previously accumulated RRSP room in
1995**

	Contributors		Contributions *	
	'000	%	\$ millions	%
Total	1,636	100	9,386	100
Contributions alone				
Greater than \$14,500	766	47	5,312	57
Less than \$14,501, but greater than 18%**	70	4	1,390	15
695	43		3,922	42
Combinations of PA and contribution				
Greater than \$14,500	870	53	4,074	43
Less than \$14,501, but greater than 18%**	174	11	1,335	14
696	43		2,739	29

Source: RRSP room file

* Includes contributions covering both new and unused room.

** Greater than 18% of 1994 earned income.

While 38% of all 1995 RRSP contributors were between 45 and 64 years of age, more than 47% of those who tapped their unused room that year were in that age group. Some 22% of contributors who used up some of their accumulated room had an income of \$60,000 or more, and an additional 26% reported between \$40,000 and \$59,999. Moreover, the two groups combined accounted for 62% of the \$9.4 billion contributed.

Conclusion

As a whole, Canadian taxfilers have traditionally contributed only a relatively small proportion of the maximum allowable amount to RRSPs. The amount not used has been accumulating since 1991 and by 1997 the total RRSP room (both unused room from previous years and 1997 new room) was more than \$216 billion. There are indications that at least some of this accumulated room is being used up by a growing number of taxfilers. The proportion of total room used decreased annually from 1991 to 1995, but held at 12% in 1996. One reason for this levelling off was the reduction

of the maximum dollar amount of new room credited to taxfilers that year, from \$14,500 to \$13,500. Since this amount is now frozen at \$13,500 until the year 2004, perhaps a growing number of RRSP contributors will make deposits that exceed their annual new room in the coming years.

A large proportion of unused RRSP room is held by workers with low incomes, many of whom may never be in a financial position to contribute to RRSPs. They may also have little need to do so; according to the Department of Finance, government pensions from the OAS/GIS and C/QPP may provide disposable income as great as, or greater than, that before their retirement. Persons with higher incomes who have not made full use of their RRSP opportunities may have had more pressing financial obligations. This may change with time, however.

Traditionally, taxfilers in their late forties and fifties have had both the highest RRSP participation rates and highest average contributions (Frenken, 1995b). They are also more likely than others to use some of their

previously accumulated room, which for some may be quite substantial. At those ages, individuals are generally in a better financial position than before to make RRSP contributions. They are very likely in their peak earning period and, with paid-off mortgages and children no longer dependent on them, they may have greater discretionary income than they did when they were younger. Also, because of their age, they may have a greater sense of urgency to save for their retirement.

The first members of the baby boom generation have recently entered the ages of greatest RRSP participation and will be followed by many more for some time. Whether this will result in a massive depletion of accumulated RRSP room with consequent tax implications remains to be seen. □

Notes

1 The PA is a calculated value of the pension credits earned by the taxfiler who participates in an employer-sponsored pension plan or deferred profit sharing plan. The inclusion of the PA in calculating RRSP room is intended to provide similar tax breaks to workers with or without such coverage (Frenken, 1995a).

2 These data differ slightly from those published by the Small Area and Administrative Data Division (SAADD) of Statistics Canada, because SAADD has removed some records from the file and because this article is based on a 2% sample. New room for 1997 is based on 1996 tax information.

3 Although preliminary summary information on 1996 contributions and 1996 and 1997 room was available at the time of analysis, the most recent detailed data for study were for 1995.

4 The 1991 RRSP participation rate of 32% is identical to the figure noted in the accompanying article, "RRSP contributions and withdrawals: An update." That year marked the beginning of RRSP room. For subsequent years, the rates contained in this study are slightly lower. Whereas the other article considers only taxfilers with RRSP room assessed in the particular

year examined, this analysis includes all individuals with room assessed at least once since 1991, making the denominators used here a bit larger.

5 A proposal to replace the OAS/GIS with a new Seniors Benefit is now being considered. This change would have little effect on the need for retirement savings for people with low incomes. In fact, many may see an increase in their government pensions from previous levels.

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Forgetting Something

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What's new?

■ UPCOMING RELEASE

■ *Survey of Work Arrangements*

In November 1991, Statistics Canada funded and conducted the Survey of Work Arrangements (SWA), the first comprehensive national survey to gather detailed information on the weekly, daily and hourly work routines of Canadian paid workers (employees). Statistics Canada released the results of this survey in a special statistical compendium, *Work Arrangements* (Catalogue no. 71-535-MPB, no. 6) and in numerous analytical studies. Various government and private organizations interested in work practices and conditions of work also made extensive use of these data.

Growing interest in the data generated by the SWA led Human Resources Development Canada to fund a second survey in November 1995, to ascertain what changes (if any) had occurred over the years. *Work Arrangements in the 1990s* provides results from the 1991 and 1995 surveys. It contains in-depth statistical information and analysis on the hours people work, the emergence of alternative work patterns such as flexitime and home-based work, and the work schedules of families and students. In addition, it looks at the quality of jobs as measured by wage and non-wage benefits, unionization, job permanence and employer size. Also briefly examined are work hours and income preferences, self-employment, and provincial and regional data. Following are selected highlights:

- The five-day work week was the norm for the majority of employees in both 1991 and 1995.
- Working from home has become more common. In November 1991, approximately 6% of employees indicated that they performed some or all of their paid duties at home; by 1995 the proportion had risen to 9%.
- Workers with higher pay were also more likely to enjoy non-wage benefits, such as employer-sponsored pension, health and dental plan coverage, and paid sick leave and vacation leave entitlements.
- Workers in Ontario commanded the highest hourly wage rate in 1995. That province, together with Newfoundland and Manitoba, also registered

a relatively high percentage of employees covered by employer-sponsored pension and health plans.

- Given the choice, approximately two out of three employees preferred to work the same hours for the same pay; another 6% indicated a preference for fewer hours and less pay, while 28% favoured more hours with more pay.
- The self-employed tend to work longer hours: approximately 37% put in 50 hours or more each week.

Work Arrangements in the 1990s (Catalogue no. 71-535-MPB, no. 8, \$53) will be available soon. For further information, contact Ernest B. Akyeampong at (613) 951-4624; fax (613) 951-4179; Internet: akyearn@statcan.ca. □

■ JUST RELEASED

■ *Survey of Consumer Finances looks at earnings*

With the labour market's intermittent growth in 1996, how did the earnings of women compare with those of men? How did education, age, full- and part-time status and job tenure affect the differences? *Earnings of Men and Women, 1996* (Catalogue no. 13-217-XPB) helps to answer these questions. This publication shows annual earnings by sex and female-to-male earnings ratios. Earnings distributions are shown for men and women by province, age, education, occupation and work experience. Also presented are data on husbands' and wives' contributions to family income.

To order this publication, contact the Dissemination Unit, Household Surveys Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; Internet: expenditures@statcan.ca. □

■ *Business bankruptcy in Canada, 1996*

According to a new study, firms in Canada go bankrupt primarily because their managers lack the experience, know-how, or vision to run their businesses. It is not a lack of sophisticated management techniques that causes the problem; rather, it is an inability to master the basic skills.

A second key deficiency occurs in the area of financial management. Seven out of ten firms that failed in 1996 did so because of bad financial planning. Three problems cropped up regularly: an unbalanced capital structure, an inability to manage working capital, and undercapitalization.

Problems in securing different types of capital were often related. For example, firms that were unable to obtain sufficient capital from financial institutions were also unable to pursue a number of other financing options. Highlights:

- In 1993, about 3,700 incorporated businesses failed in Canada, with liabilities totalling \$4.1 billion. Much of the money forfeited was owed to Canadian banks, the largest creditors for Canadian businesses. Canadians also felt the costs of bankruptcy through the loss of jobs. Half of bankrupt firms had between one and nine employees when they failed.
- Between 1992 and 1996, corporate bankruptcies made up only 28% of all business bankruptcies, but accounted for about 65% of total business liabilities arising from bankruptcy. The average corporate bankruptcy involved liabilities of \$1.3 million, five times the average \$260,000 for non-corporate business bankruptcies.
- The number of bankruptcies nearly doubled between 1985 and 1995, while the business population increased by only half. As a result, the incidence of bankruptcy increased from 10 failures per 1,000 businesses in 1985 to 14 per 1,000 in 1995.
- Small, young firms were most at risk, primarily because their management had not yet built up the necessary experience and knowledge. Over half the new firms that failed in the first 10 years of life did so within their first 2 years. More than half of younger firms, those less than 5 years old, had a senior manager who had less than 5 years of managerial experience.

For further information on *Failing Concerns: Business Bankruptcy in Canada* (Catalogue no. 61-525-XPE, \$30), contact John R. Baldwin, Microeconomics Analysis Division at (613) 951-8588; fax (613) 951-5403; Internet: baldjoh@statcan.ca. □

■ Article from Canadian Social Trends

"I feel overqualified for my job..."

The Canadian population has become more educated in the last 25 years: between 1971 and 1996, the percentage of adults with more than a high school

education rose from 21% to 50%, while the proportion with a university degree jumped from 5% to 15%. At the same time, many jobs are demanding more sophisticated and technically complex skills because of shifts in Canada's industrial structure and rapid advances in information technologies. Yet in spite of this growing demand for highly skilled workers, many of those with postsecondary schooling believe their education and experience exceed the demands of the job.

In 1994, 4.4 million employed Canadians – 39% of all workers – had a university or community college certificate, diploma or degree. More than one-fifth (22%, or just under 1 million) of these workers felt overqualified for their jobs. Some 27% of those with an earned doctorate, master's or diploma above the bachelor's level expressed this opinion, compared with just over one-fifth of those with a bachelor's or first professional degree (22%), or a community college diploma (21%).

Some 23% of university and community college graduates were employed in clerical, sales or service jobs, which may not have required postsecondary education; 37% of these people felt overqualified. When the effects of other demographic and socioeconomic factors were held constant, these graduates were at least twice as likely as those in management or professional jobs to feel overqualified.

For further information about this article (which appeared in the Winter 1997 issue of *Canadian Social Trends* [Catalogue no. 11-008-XPE]), contact Warren Clark at (613) 951-2560; fax (613) 951-0387; Internet: clarwar@statcan.ca or Karen Kelly at (613) 951-2598; Internet: kellkar@statcan.ca. □

■ Low income cut-offs, 1997

Low income cut-offs (LICOs) for 1997 are now available. Each year, the LICOs are updated to reflect cost-of-living increases, as indicated by the annual change in the Consumer Price Index (CPI). Both the 1992-base and 1986-base LICOs are contained in the report.

Recently, media coverage of LICOs has focused on their relationship to the measurement of poverty. At the heart of the debate is the use of the LICOs as poverty lines. Statistics Canada has always insisted that the LICOs are not measures of poverty and should not be used as such. Rather, they reflect a consistent and well-defined methodology that identifies those who are substantially worse off than the average. In the absence of an accepted definition of poverty, these statistics have been used by many analysts who wanted to study the characteristics of

such families in Canada. These measures have enabled Statistics Canada to report important trends, such as the changing composition of this group over time.

For further information or to order *Low Income Cut-offs* (Catalogue no. 13-551-XPB, \$5) for the years 1980 to 1997, contact the Dissemination Unit at (613) 951-7355; 1 888 297-7355; fax (613) 951-3012; Internet: income@statcan.ca. □

■ ***Government finances and generational equity***

Is there a "fiscal dividend"? How fast should the national debt be reduced? How much of a burden does existing fiscal policy place on future generations?

These are pressing questions central to the conduct of Canadian fiscal policy in the 1990s, and they form the motivation for this collection of essays. *Government Finances and Generational Equity* offers a detailed analysis of the current state of Canadian fiscal policy and how it has changed over the past two decades. Leading academic researchers, as well as senior analysts from Statistics Canada and the Department of Finance, look at the following:

- the "deficit" as a measure of generational equity, and as a guide for the conduct of government taxation and spending decisions;
- the age distribution for government taxes and transfers, both by program and by level of government;
- the effect of reducing the national debt on the well-being of both current and future generations;
- the inter-generational implications of the unfunded liability of Workers' Compensation programs; and
- the manner in which generational equity should be measured.

For more information on *Government Finances and Generational Equity* (Catalogue no. 68-513-XPB, \$35) contact Miles Corak, Analytical Studies Branch at (613) 951-9047; Internet: coramil@statcan.ca. □

■ ***Latest on the labour force***

The fourth issue of *Labour Force Update* (Catalogue no. 71-005-XPB) provides an overview of the 1997 labour market. Following are highlights:

- Employment growth in 1997 resembled that of 1994 in several respects: it was all in full-time work; concentrated among adults aged 25 to 54;

in manufacturing and business services; and among professionals, whose wages tend to be higher than average.

- By year-end, the participation rate was unchanged at 64.8%, still 2.7 percentage points lower than in December 1989. (It had dropped to 65.5% by April 1992, when the downward trend in employment finally stopped.)
- By December 1997, women aged 25 to 54 were the only demographic group with a participation rate higher than in 1989 (up 1.0 percentage points). Youths (-9.2 points), persons aged 55 or more (-2.3 points), and men aged 25 to 54 (-2.0 points) were all less likely to be in the labour force in 1997 than they were in 1989.
- The combination of employment growth and a stable participation rate reduced the number of unemployed over 1997 for all groups. The unemployment rate had hovered around 9.7% through most of 1995 and 1996, mainly as a result of fluctuations in labour force participation. Employment growth in 1997 pushed the rate down to 9.1% by mid-year, and to 8.6% by year-end, the lowest rate since September 1990.

For additional information on this publication, contact Geoff Bowlby at (613) 951-3325; Internet: bowlgeo@statcan.ca or Jean-Marc Lévesque at (613) 951-2301; fax (613) 951-2869; Internet: levejea@statcan.ca. □

■ ***The Year 2000 computer problem***

In October and November 1997, Statistics Canada, on behalf of Task Force Year 2000, conducted a survey to assess the business community's readiness for the Year 2000 computer problem. According to the survey, over half of Canadian businesses with more than five employees are doing nothing to address this issue. Moreover, less than 10% of firms have a formal plan to assess, convert and test systems for the date change to 2000. Some 2% of firms have implemented and completed all phases of a plan, and a further 16% have taken less formal steps and say their systems are confirmed to be ready for 2000. A recent report takes a closer look at the survey results to determine how businesses in different industries and size categories are preparing for potential difficulties, and it assesses the general cost and magnitude of fixing the problem.

For further information on *The Preparedness of Canadian Business for the Year 2000 Computer Problem*, contact Jamie Brunet, Small Business and

Special Surveys Division at (613) 951-6684; Internet: brunjam@statcan.ca. Readers can obtain the document from the Statistics Canada website: <http://www.statcan.ca:80/english/freepub/61F0057MIE/free.htm> or from the Industry Canada site: <http://strategis.ic.gc.ca/sos2000>. □

■ North American labour markets

A recent report compares the labour markets of the United States, Mexico and Canada. Prepared by the Secretariat of the Commission for Labor Cooperation, it attempts to present all currently available basic labour market information where reasonably comparable estimates exist.

The study spans the period 1984 to 1995 and presents some of the important trends and themes that have emerged over that period in several key areas, including employment, work time and non-standard work, unemployment, unionization, earnings, productivity, income distribution, and employment benefits.

This report is the first in the North American Labor Series. Upcoming projects include a comparative labour law report, a study on advanced and standard practices in the garment industry, and proceedings of the North American Seminar on Incomes and Productivity. The aim of these reports is to promote a broader understanding of North American labour matters.

The Secretariat was established under the North American Agreement on Labor Cooperation (NAALC), a supplementary accord to the North American Free Trade Agreement. Through the NAALC, the continental trading partners seek to improve working conditions and living standards, and they commit themselves to protect, enhance, and enforce the basic rights of workers.

For further information on *North American Labor Markets: A Comparative Profile*, contact the Secretariat at (214) 754-1100; fax (214) 754-1199; website: <http://www.naalc.org>. □

■ Analytical Studies Branch research papers series

Job Turnover and Labour Market Adjustment in Ontario from 1978 to 1993

Z. Lin and W. Pyper

Research Paper Series no. 106

This paper documents job turnover and labour market adjustment activities in the Ontario economy from 1978 to 1993. The data are extracted from the Longitudinal Worker File (LWF) created and managed by the Business and Labour Market Analysis Division of Statistics Canada. The LWF draws on data from Human Resources Development Canada, Revenue Canada and Statistics Canada.

The paper consists of three main sections: patterns in permanent layoff rates and permanent separation rates by major industrial sector; probabilities of permanent layoffs and permanent separations by major industrial sector; and labour market transitions for separated workers in selected years.

International Competition and Industrial Performance: Allocative Efficiency, Productive Efficiency, and Turbulence

J.R. Baldwin and R.E. Caves

Research Paper Series no. 108

A shift toward freer trade and the generally sustained economic growth of industrialized countries have provided much experience (especially in the past three decades) with the effects of international competition on national product markets. By this is meant the distinctive ways in which domestic sellers' competition and the market outcome are affected by the presence of foreign customers and/or sellers. In the first three sections of this paper the authors review theory and recent empirical evidence of the effects of international competition on the performance of domestic industries in two familiar dimensions: allocative efficiency and productive efficiency. They go on to present new empirical evidence of one manifestation of international competition that has only recently gained recognition: its effect on turbulence or turnover within the domestic industry.

To order studies in the Research Paper Series, contact your nearest Statistics Canada Regional Reference Centre, or write to Publications Review Committee, Analytical Studies Branch, 24th floor, R.H. Coats Building, Ottawa, Ontario K1A 0T6. Or phone (613) 951-1804; fax (613) 951-5403. □

Key labour and income facts

The following is a guide to data sources for labour market, business, income and earnings, pension, education and other household topics. Each quarter, this section presents charts and analysis featuring one or more of these sources. For general inquiries, please contact Joanne Bourdeau at (613) 951-4722; Internet: bourjoa@statcan.ca or Jeannine Usalcas at (613) 951-4628; Internet: usaljea@statcan.ca.

Administrative data

Small area and administrative data
Frequency: Annual
Contact: Customer Services
(613) 951-9720

Business surveys

Annual Survey of Manufactures
Frequency: Annual
Contact: Richard Vincent
(613) 951-4070

Business Conditions Survey of Manufacturing Industries
Frequency: Quarterly
Contact: Claude Robillard
(613) 951-3507

Census

Census labour force characteristics
Frequency: Quinquennial
Contact: Michel Côté
(613) 951-6896

Census income statistics
Frequency: Quinquennial
Contact: Abdul Rashid
(613) 951-6897

Employment and income surveys

Labour Force Survey
Frequency: Monthly
Contact: Nathalie Caron
(613) 951-4168

Survey of Employment, Payrolls and Hours
Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Help-wanted Index

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Employment Insurance Statistics Program

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Major wage settlements

Bureau of Labour Information
(Human Resources
Development Canada)
Frequency: Quarterly
Contact: (819) 997-3117

Labour income

Frequency: Quarterly
Contact: Anna MacDonald
(613) 951-3784

Survey of Labour and Income Dynamics

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Survey of Consumer Finances

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Household Facilities and Equipment Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Family Expenditure Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

General Social Survey

Education, work and retirement
Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Social and community support

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Time use

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Pension surveys

Pension Plans in Canada Survey
Frequency: Annual
Contact: Thomas Dufour
(613) 951-2088

Quarterly Survey of Trusteed Pension Funds

Frequency: Quarterly
Contact: Thomas Dufour
(613) 951-2088

Special surveys

Survey of Work Arrangements
Frequency: Occasional
Contact: Ernest B. Akyeampong
(613) 951-4624

Adult Education and Training Survey

Frequency: Occasional
Contact: Steve Arrowsmith
(613) 951-0566

Graduate Surveys

(Postsecondary)
Frequency: Occasional
Contact: Bill Magnus
(613) 951-4577

Participation rate of men and women aged 20 to 64



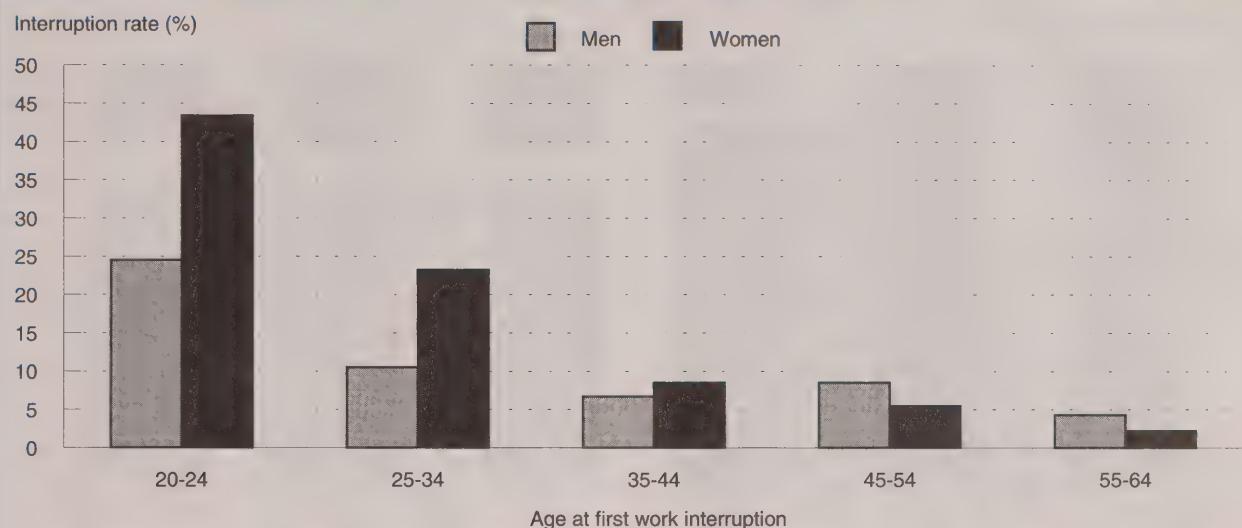
Source: Labour Force Survey

Changes in women's work participation

Because women are more likely to interrupt employment for a long period of time, their attachment to the labour force has traditionally been viewed as weaker than men's. But women's participation in the workforce has increased dramatically.

By 1995, 70% of women aged 20 to 64 were in the labour force; that is, they were either employed or looking for work. Women today have also shown an increased commitment to lifelong careers, reporting fewer and shorter periods of employment discontinuity than earlier generations of women.

People who experienced interruptions of paid work between 1990 and 1994, as a percentage of those who had ever worked



Source: General Social Survey, 1995

Work interruptions occur early in women's careers

According to the 1995 General Social Survey, almost two-thirds (62%) of all women who had ever worked had left their paid employment for six months or more. In contrast, just over one-quarter of men (27%) had done so.

Between 1990 and 1994, 43% of women in their early twenties who had ever worked experienced their first interruption. In contrast, only 9% of those aged 35 to 44 experienced their first interruption.

The high rate among younger women may be related to their limited work experience and to the higher fertility rate of this age group.

Defining an interruption in paid work

"Work interruptions" was one of the topics covered by the 1995 General Social Survey (GSS). Respondents who had worked steadily for pay for at least six months were asked whether they had ever stopped working for pay for a period of six months or more. Respondents who had done so are said to have experienced a long-term interruption in paid work, whether or not they returned to work. Respondents were asked when and why each interruption of six months or longer started. If they had returned to paid work, they were also asked how long the interruption had lasted, whether they had returned to the same job, whether the job had similar duties and whether they had returned to a full- or part-time job.¹

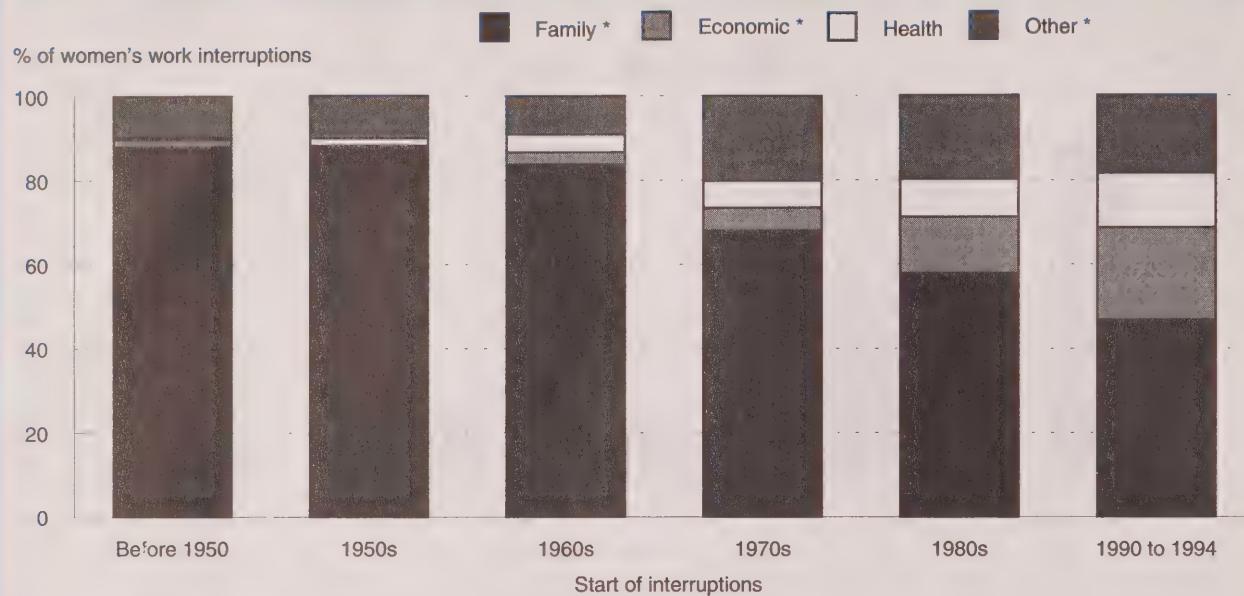
The GSS relied on the ability of respondents to recall work interruptions over a lifetime of work. Consequently,

responses are subject to recall error, especially for those with longer work histories.

People under age 20 and full-time students who had worked part time were excluded from this analysis because of their short-term labour market experience. Many older workers indicated that their first interruption occurred at retirement. While retirement has become less permanent than it once was, the nature and consequences of this type of interruption are likely to be quite different from those of other types. Consequently, this analysis did not consider retirement to be a work interruption.

¹ Respondents were not asked whether they had returned to the same employer. (A return to the same employer has implications for seniority rights, pension credits and maintenance of rates of pay.)

Reasons for women's interruptions of paid work



Source: General Social Survey, 1995

* Family-related reasons include marriage, maternity leave and care of children or elderly relatives. Economic reasons include layoff or end of contract, lack of work, business or company closure and seasonal work. Other reasons include returning to school, moving and other reasons.

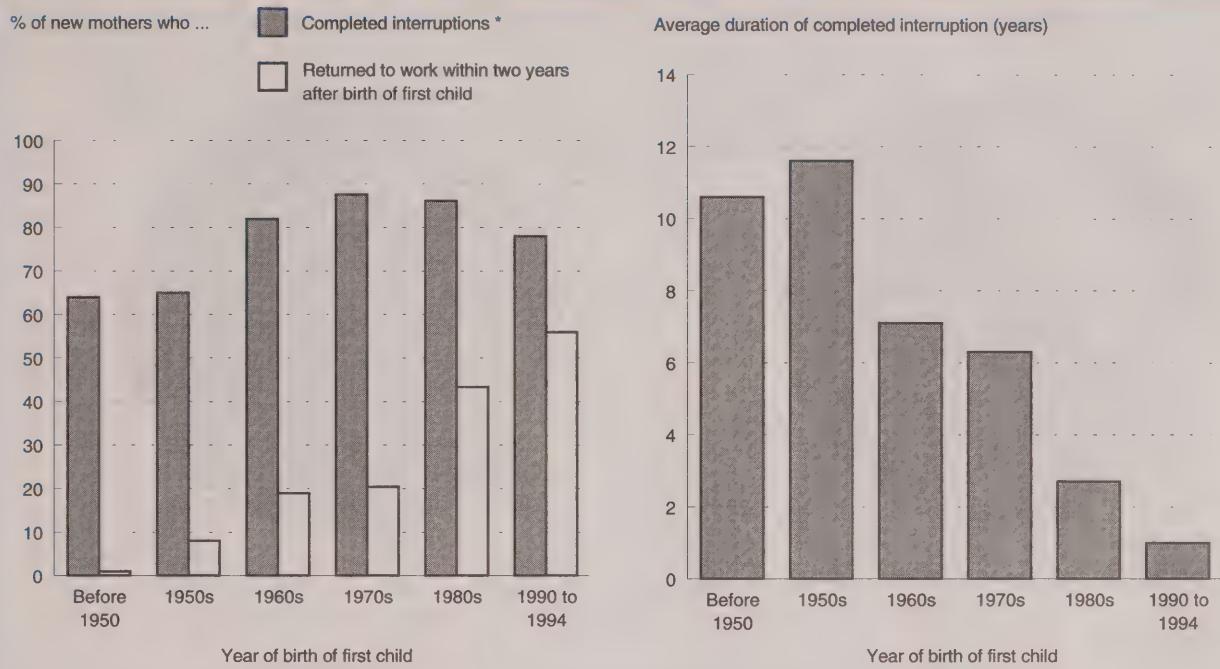
Women interrupt their careers for family-related reasons

The changing nature of women's role as family caregivers is evident from the work interruption data. In the 1950s, family-related reasons accounted for 88% of all women's interruptions, while economic reasons accounted for less than 1%. In contrast, in the early 1990s family-related

reasons accounted for less than half (47%) of all women's interruptions of paid work, and economic reasons, 22%.

Factors that may have influenced this change include lower fertility rates, delayed childbearing and changes in the workplace that have enabled women to resume work after childbirth.

Mothers who interrupted paid work for six months or more at birth of first child



Source: General Social Survey, 1995

* New mothers who returned to work after the birth of their first child.

Mothers return to paid work more quickly in the 1990s

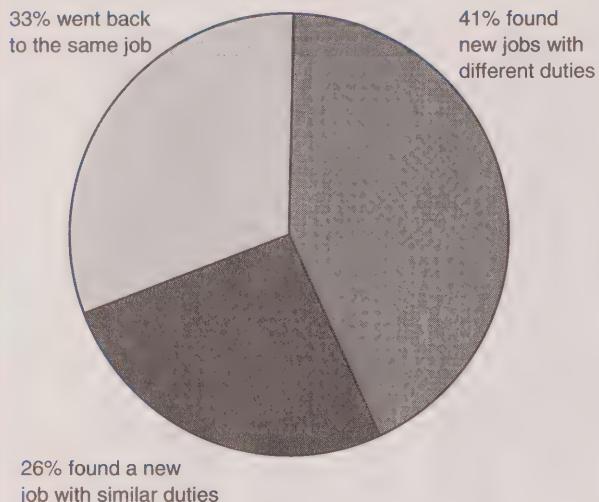
In the 1950s, 65% of women who interrupted their paid work for the birth of their first child returned to work, but only 8% did so within 2 years of the start of the interruption. The average interruption lasted 12 years.

By the early 1990s, 78% of new mothers who interrupted their paid work returned after the birth of their child, 56% within 2 years of the start of the interruption. The average interruption was only one year.

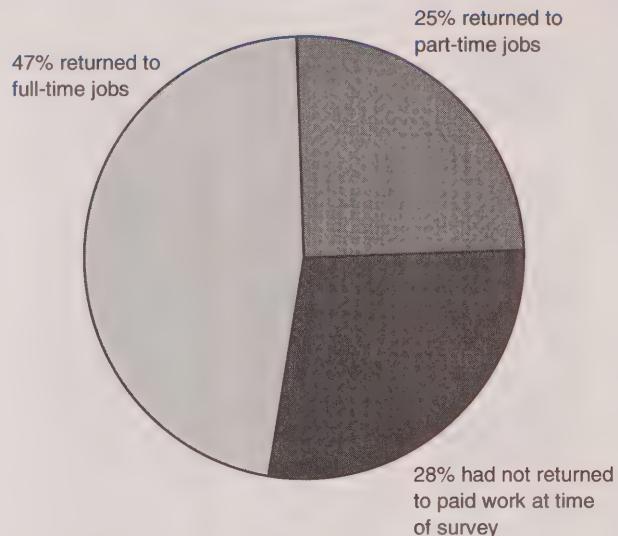
A 1996 report corroborates this analysis, showing that women today have fewer children, more frequently delay childbearing until they have established their careers, are less likely to interrupt their careers for six months or more after giving birth, and return to paid work much more quickly than new mothers of earlier generations (Ford and Nault, 1996).

Ford, D. and F. Nault. "Changing fertility patterns, 1974 to 1994." *Health Reports* (Statistics Canada, Catalogue no. 82-003-XPB) 8, no. 3 (Winter 1996): 39-46.

Of women who returned to paid work after an interruption...



Of women who interrupted full-time paid work ...



Source: General Social Survey, 1995

Most women return to work

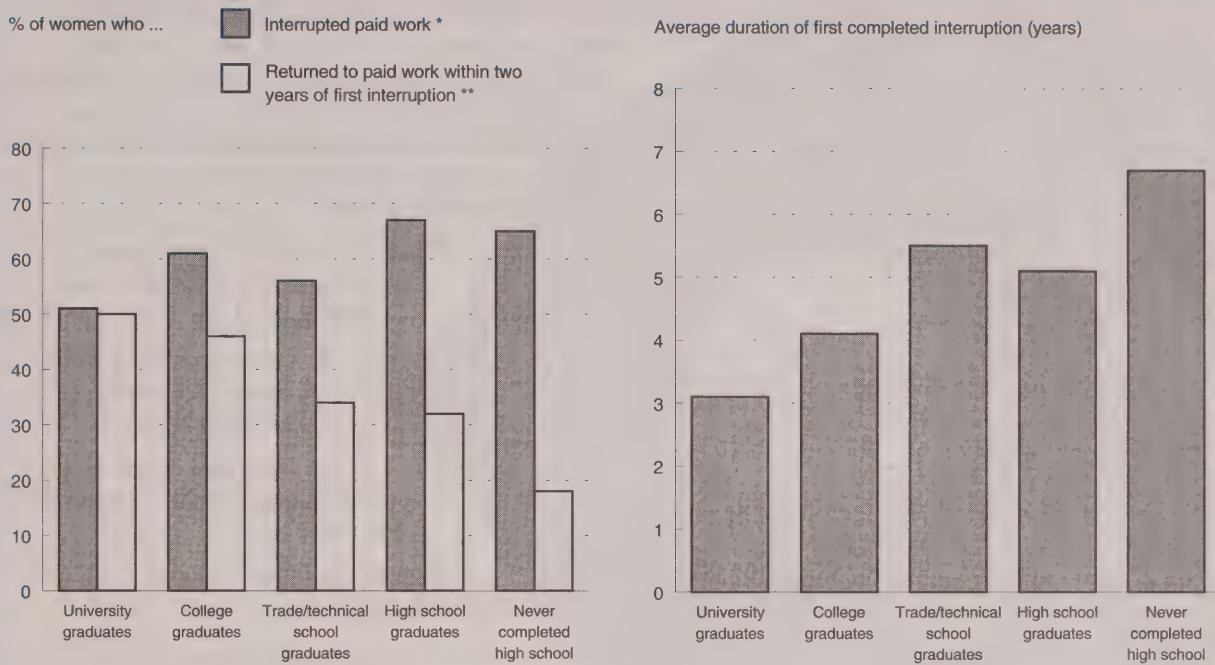
Most women who had ever interrupted paid work returned afterwards (71%). Among those who did, one-third went back to the same job. About one-quarter found a new job with similar duties, while 41% found new jobs with other duties.

However, less than half of those who had full-time jobs returned to a full-time job; one-quarter returned to part-time work. The remainder had not yet returned to paid work at the time of the survey.

Many women who worked part time before they interrupted their paid work returned as part-time employees (42%), while 37% had not re-entered the paid labour force as of 1995. According to the 1988 Canadian National Child Care Study, 31% of part-time workers with children under age 13 worked part time because of family responsibilities (Lero et al., 1992). Since many of women's lengthy breaks are related to family responsibilities, a return to paid work may be greatly influenced by the availability of supports such as daycare facilities and home support for children and, in some cases, help for elderly parents.

Lero, D.S. et al. *Canadian National Child Care Study: Parental Work Patterns and Child Care Needs*. Catalogue no. 89-529-XPE. Ottawa: Statistics Canada, Health and Welfare Canada, and National Day Care Research Network, 1992.

Educational attainment of women with work interruptions



Source: General Social Survey, 1995

Note: Respondents' highest level of education in 1995; interruptions may have occurred much earlier when respondents had less education. To reduce the effect of education upgrading, first interruptions due to a return to school are excluded from this chart.

* As a percentage of women who ever worked for pay.

** As a percentage of women who interrupted their paid work.

Education: a factor in work interruptions

In general, women with more education experience fewer work interruptions. These findings are expected, as those with more education usually have the most marketable skills and are therefore able to obtain the highest-paying and most stable jobs.

As well, those with higher levels of education may have the greatest incentive to return quickly to paid work

because they have the most to lose in forgone earnings. University graduates had by far the shortest work interruptions and were the least likely to experience them.

Charts and text for this issue's "Key labour and income facts" were adapted from an article in *Canadian Social Trends*, "Changes in women's work continuity," Autumn 1997 (Statistics Canada, Catalogue no. 11-008-XPE). For more information, contact Janet Fast, University of Alberta at (403) 492-5768; Internet: janet.fast@ualberta.ca.

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In the works

Here are some of the topics to be featured in upcoming issues

■ Moonlighting: a growing way of life

In the last 20 years, the number of multiple jobholders or moonlighters has more than tripled. Who are these people and how do they compare with those a decade or two ago? Using data from the Labour Force Survey and the Survey of Work Arrangements, this article considers various reasons for the phenomenon and looks at the characteristics of moonlighters and their jobs. U.S. trends are also noted.

■ Working at home

Two studies look at the advantages and disadvantages of working at home (for an employer or oneself). They trace the growth of this option and outline the characteristics of the jobs and workers involved.

■ Family income after separation, for people without children

This article adds another dimension to a ground-breaking study published in *Perspectives* last year. The authors turn their attention to the financial situation of separated persons who had no children before the breakup.

■ The booming market for computer programmers

Employment growth in computer programming and related work in recent years is documented in this study, which also notes in what areas jobs are being created. Earnings are also discussed.

■ Employment insurance in Canada: Recent trends and policy changes

Two articles look at modifications to the Employment Insurance (EI) program (formerly known as Unemployment Insurance). The first discusses legislative and policy changes made over the 60 years of the program's existence, especially those introduced in the 1971 *Unemployment Insurance Act*. The second considers recent trends in the EI balance sheet brought about by changes in the economy and in legislation.

■ RRSPs and the Home Buyers' Plan

This article looks at the RRSP Home Buyers' Plan in terms of the amounts withdrawn and the number of participants, by age, sex and income. In addition, it considers the number of taxfilers who defaulted on their 1995 repayments, as well as the amounts involved, and it compares defaulters with those who did repay. The study also examines whether those who repaid were able to make additional RRSP contributions.

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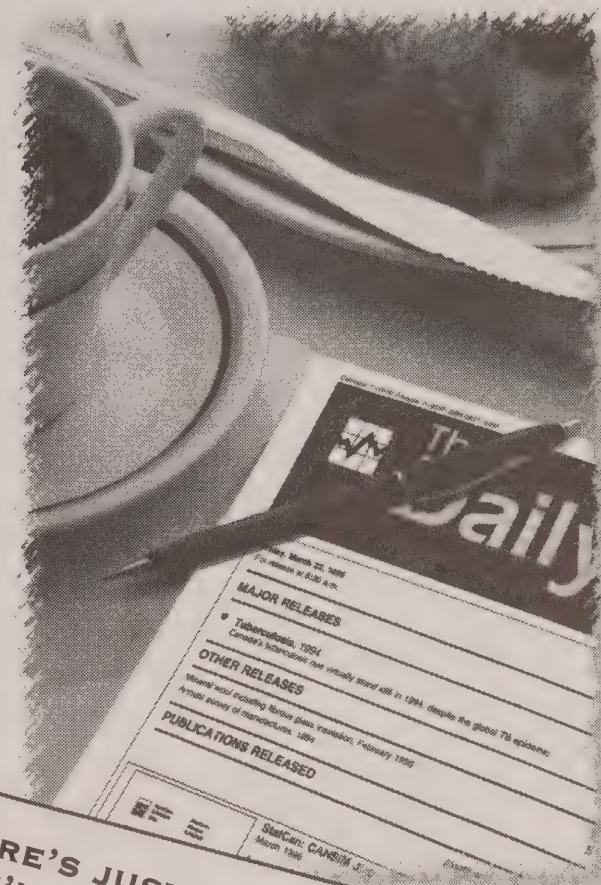
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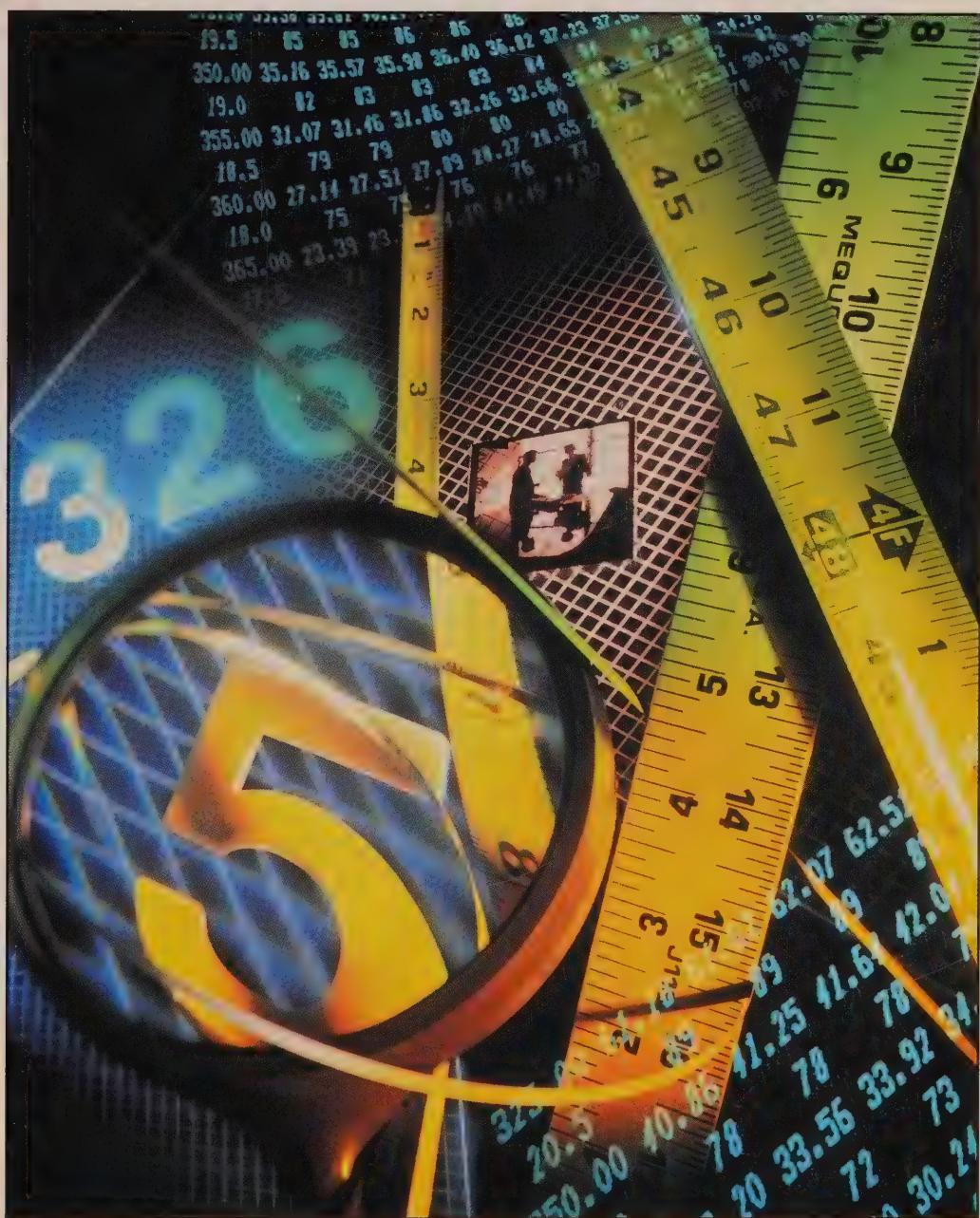
PERSPECTIVES

ON LABOUR AND INCOME

SUMMER 1998

Vol. 10, No. 2

- COMPUTER PROGRAMMERS
- WORKING AT HOME
- MOONLIGHTING
- INCOME AFTER SEPARATION
- RRSP HOME BUYERS' PLAN
- EMPLOYMENT INSURANCE



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Our 10th anniversary logo was designed by John Bradford of the Labour and Household Surveys Analysis Division.

38 The RRSP Home Buyers' Plan

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This article looks at the RRSP Home Buyers' Plan in terms of the amounts withdrawn and the number of participants by age, sex and income. In addition, it considers the number of taxfilers who defaulted on their 1995 repayments and the amounts involved.

42 Employment Insurance in Canada: Policy changes

Zhengxi Lin

This overview highlights legislative and policy changes in Employment Insurance since 1940.

Symbols

The following standard symbols are used in Statistics Canada publications:

- ... figures not available
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Forum

Letter from the Managing Editor

I have been involved with *Perspectives* off and on since its inception 10 years ago, so it is especially gratifying to return in this its 10th anniversary year. The publication has changed over the years, but its basic goal has not: to provide a diverse audience with reliable labour and income information in an easy-to-digest format.

In more than 200 articles, we have ranged widely: moonlighting, volunteering, discretionary spending, back injuries, high income earners, job training, retirement savings, lotteries and gaming, family holidaying, marital breakups, computers at work, bilingualism, and substance abuse. But even at that, we have barely scratched the surface of Statistics Canada data relating to labour and income issues.

Our analysts continue to pursue various topics under the assumption that their choices will be of interest. We would, however, welcome any suggestions regarding the topics you would like to see. Do some subjects warrant revisiting? Have some been covered too often? Please let us know.

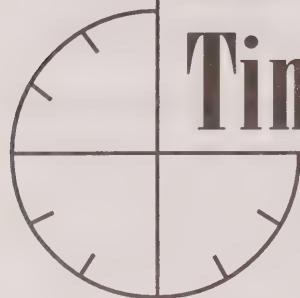
With the recent, almost exponential, growth in Internet use, Statistics Canada has enhanced its presence on the World Wide Web. Building on this, *Perspectives*, and most other analytical publications from the Agency, will soon be readily accessible from a "hyperlink" on our main page. We hope you will drop by regularly.

Henry Pold
Managing Editor
E-mail: poldhen@statcan.ca



We welcome your views on articles and other items that have appeared in *Perspectives*. Additional insights on the data are also welcome, but to be considered for publication, communications should be factual and analytical. We encourage readers to inform us about their current research projects, new publications, data sources, and upcoming events relating to labour and income.

Statistics Canada reserves the right to select and edit items for publication. Correspondence, in either official language, should be addressed to: Heather Berrea, What's new? Co-ordinator, *Perspectives on Labour and Income*, 5-D Jean Talon Building, Statistics Canada, Ottawa K1A 0T6. Telephone (613) 951-8613; fax (613) 951-4179 or e-mail: berrhea@statcan.ca.

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- ◆ In total, it is estimated that, among full-time workers, 66 million workdays were lost in 1997.

This publication provides a series of tables on work absence rates for men and women working full time, by age, education, and presence of children; by detailed industry and occupation groups; by public versus private sector; by union coverage, workplace size, job tenure and job permanency; by province, region and census metropolitan area; and by job benefits (paid vacation or sick leave entitlements, and flexitime work option).

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Highlights

■ The booming market for programmers ... p. 9

- In 1997, the unemployment rate for computer programmers was only around 2% to 3%. This was lower than any national unemployment rate since the mid-1960s. From the fourth quarter of 1992 to the end of 1997, jobs for computer programmers and systems analysts rose from 139,000 to 267,000 – a 92% increase, compared with 9% for overall employment.
- Programming jobs were found mainly in Canada's larger metropolitan areas. Toronto, Montréal, Calgary and Vancouver attracted most computer programmers. Ontario added the most positions (58,000), while British Columbia had the fastest growth (155%), led by Vancouver (179%). Despite the rapid growth of these jobs in the other centres, the highest concentration of software workers in 1997 was in Ottawa-Hull: 5.3% of employment.
- Contracting-out has become a preferred arrangement for employers, demonstrated by the growth in business services. Of the 128,000 computer programming jobs created between 1992 and 1997, some 70,000 were in this industry.
- In 1997, programmers and systems analysts earned more than workers overall (\$843 per week versus \$577), but slightly less than other scientific and technical workers (\$877).
- The booming employment market for software workers has not translated into longer work weeks. Computer programmers worked slightly shorter weeks than other scientific and technical workers but were more likely to work full time.
- Computer programming remains a young person's game: in 1997, these workers were more likely to be aged 25 to 34. However, the highest proportionate five-year increase was in the 45-and-over category, mainly because of hirings, and transfers within firms.

■ Working at home ... p. 16

- Between 1991 and 1995, the proportion of employees working at home in Canada increased from 6% to 9%.
- Even though working at home is increasingly common, employees who spend most of their time there remain the exception. Among the one million workers who worked at home in November 1995, 421,000 did so less than five hours a week, and just 143,000 worked *only* at home.
- University graduates were by far the most likely to work at home. Some 25% did so, compared with only 7% of those with a high school diploma or non-university postsecondary certificate. Forty-two percent of employees working at home were professionals (two-thirds of whom were teachers) and 27% were directors, managers or administrators.
- On average, employees who worked at home in November 1995 were better paid (\$20.15 per hour) than their peers who worked on the employer's premises (\$14.65 per hour). They were also more likely to be covered by employment benefits.
- In November 1995, employers provided equipment or reimbursed the costs of equipment for 38% of employees working at home. One home-based worker in 5 was provided with a computer, one in 7 with a modem, and one in 10 with a fax.

■ Moonlighting: A growing way of life ... p. 24

- From 1977 to 1997, the proportion of people holding two jobs increased steadily, from 2% of the employed to 5%. Among women, the incidence of moonlighting increased more rapidly, so that by 1997 they outnumbered men.

- In 1997, people employed in medicine and health (8.5%); social sciences (8.0%); and artistic, literary and recreational occupations (7.9%) were the most likely to moonlight.
- Self-employment and moonlighting often go hand in hand. By 1997, 51% of moonlighters owned and operated a business, farm or professional practice – or helped a family member do so – as their main or secondary job.
- Moonlighting differs greatly across Canada. The Prairie provinces, heavily reliant on agriculture, had the highest rates in 1997. The Atlantic provinces and Quebec, areas with higher unemployment rates, had the lowest.
- On average, moonlighters usually worked 32.6 hours at their main job, compared with 37.0 hours for single jobholders. Moonlighters more than made up for the shortfall by taking on additional jobs, bringing their weekly average for all jobs to 46.5 hours.

■ Income after separation – people without children ... p. 32

- Among people who separated or divorced between 1987 and 1993, and who had no children under 18 at the time of the breakup, women generally experienced a financial loss. One year after separation, such "childless" women had experienced a median loss of 16% in their adjusted family income (AFI), whereas men had realized a small gain (2%).
- One year after separation, women's AFI was 82% of men's; by the fifth year it had risen to 94%, indicating that women's financial situations improved over time. Women who became part of a new couple often had a higher AFI than men in the same situation. However, women were less likely to form a new union: 37% of men and only 29% of women were again in a relationship one year after separation.
- Post-separation sources of income were similar for both sexes. The proportion of individuals with employment income dropped and that of recipients of social assistance and other income (pensions, investment income, dividends and various tax credits) rose. This may be explained in part by age: more than one-third of these separated persons were aged 50 or more.

- Overall, support payers (men) appeared to fare better than the majority of separated men. After the separation, payers generally realized gains in AFI ranging between 5% and 10% over the five-year period, compared with rises of between 1% and 2% for non-payers. On the other hand, support recipients (women) experienced a median loss much greater than that of separated women generally (39% versus 16% in the first year). In general, recipients had a lower median AFI than non-recipients, even though they were receiving support payments.

■ The RRSP Home Buyers' Plan

... p. 38

- Since the Home Buyers' Plan (HBP) was implemented in February 1992, more than 650,000 Canadians have withdrawn \$6.2 billion from their registered retirement savings plans (RRSPs) to finance the purchase or construction of a home.
- In 1995, one-third of those obligated to repay either failed to do so or paid insufficiently. The total shortfall of over \$46 million represented one-fifth of the amount due that year. The default rate continued in 1996: of the \$271 million due, \$62 million (23%) was not paid.
- Taxfilers between 30 and 39, who were more likely than others to acquire a first home, were the main users of the program, accounting for 42% of the amounts due.
- Surprisingly, persons aged 60 and older, who made up less than 4% of persons with instalment payments, represented 7% of the 78,000 who did not meet their obligation.
- While participants with income under \$20,000 represented 14% of the individuals who made sufficient payments, they accounted for 30% of all who failed to do so. At the other end of the spectrum, HBP repayers with incomes of at least \$60,000 were 19% of the total, but only 11% of the group who failed to make adequate payments.
- Even though women's share of annual RRSP contributions has always been much lower than men's (only about 35%), they removed higher amounts under the HBP than did men. They paid 46% of the 1995 HBP instalments and were responsible for 43% of the 1995 shortfall.

■ Employment Insurance in Canada: Policy changes ... p. 42

- Employment Insurance in Canada (formerly Unemployment Insurance or UI) was introduced in Canada in 1940. Since then, the system has undergone numerous changes, the most significant being the 1971 legislation that liberalized the system. The *Unemployment Insurance Act, 1971* provided nearly universal coverage for paid employees, eased eligibility, and added a host of special benefits, such as sickness, maternity and retirement benefits.
- The balance between revenues and payouts has changed in recent years. Prior to 1993, benefit payouts exceeded premium revenues every year but 1987 and 1988. The system turned around in 1993, when the books were nearly balanced. Surpluses have been the rule ever since: the gross surplus was over \$3.5 billion in 1994 and close to \$6 billion in both 1995 and 1996.

■ What's new?

... p. 49

■ Upcoming releases

Income After Tax, Distributions by Size in Canada, 1996

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■ Just released

Work Absence Rates, 1980 to 1997

The Evolving Workplace : Findings from the Pilot Workplace and Employee Survey

1996 Census – labour force data

Low Income Measures, 1996

Income Distributions by Size in Canada, 1996

Low Income Persons, 1980 to 1996

“Differences in earnings inequality by province, 1982-94,” *Canadian Economic Observer*

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The booming market for programmers

Dave Gower

In the past few years, the market for computer programmers and related workers has become increasingly dynamic. Employers compete openly for recruits, and private colleges vie for computer science students, virtually guaranteeing jobs after graduation. Even the federal government has become involved: its "Passport Canada" program, a joint initiative with industry, helps to locate and recruit software workers from abroad and usher them through the immigration process (Brethour, 1997).

The situation is not unique to Canada. Media reports have suggested that as many as 200,000 programming jobs in the United States are unfilled, and the demand continues to grow. The effects are being felt worldwide.

Among the factors contributing to this situation are the exponential growth of the Internet and the rapid spread of internal computer networks (intranets) within large organizations. Another important factor is the Year 2000 problem – that is, the difficulty facing users of computer programs that will need to be modified to cope with the change of the last two digits of the year from 99 to 00 at the turn of the century.¹

In February 1998, Statistics Canada published results from the Survey on Preparedness of Canadian Business for the Year 2000 (Brunet, 1998), which showed, among other things, that companies were looking for roughly 7,000 programmers, well beyond the resources available within these firms. This figure is undoubtedly far below the actual number of vacant jobs for programmers and systems analysts, for at least three reasons: not all firms

surveyed had fully investigated their needs; the survey did not cover governments and other public institutions; and programmers needed for work other than the Year 2000 problem were not included.

Not surprisingly, the unemployment rate of programmers was only around 2% to 3% through 1997. This was much lower than the national rate of 9%, and indeed lower than any national unemployment rate since the mid-1960s.

This study documents the growth in employment of computer programmers and related workers, showing who is moving into the profession, and where the jobs are being created.

Sharp growth in employment in past five years

Employment of programmers and systems analysts declined during the recession of the early 1990s (see *Measuring computer programmers*). Since the end of 1992, the number of jobs for this group has risen strongly (Chart). An exception was the brief pause in late 1995, which reflected overall employment. From the fourth quarter of 1992 to the end of 1997, jobs for computer programmers and systems analysts rose 92%, from 139,000 to 267,000. Over the same period, jobs in all other scientific and technical occupations rose only 8%, from 348,000 to 375,000, and total employment rose 9%.

Measuring computer programmers

This study uses data from the Labour Force Survey (LFS). Because the household survey uses terminology provided by respondents to create its codes, the data that result can differ from those provided by another source; for example, a survey of employers or a count of association members. As a consequence, no one "true" measure of any occupation exists. Trends and comparisons between groups are more revealing than a group's level at one point in time.

Occupations discussed in this article are defined according to the 1980 Standard Occupational Classification (SOC): computer programmers and systems analysts (code 2183). During 1998, the LFS will begin using the 1991 Standard Occupational Classification, which splits this code into two: computer systems analysts (C062) and programmers (C063). The 1996 Census estimate for these two occupational groups was about 80% of the LFS figure, but the trends in both surveys were the same. Some of this gap is the result of differences in survey operations.

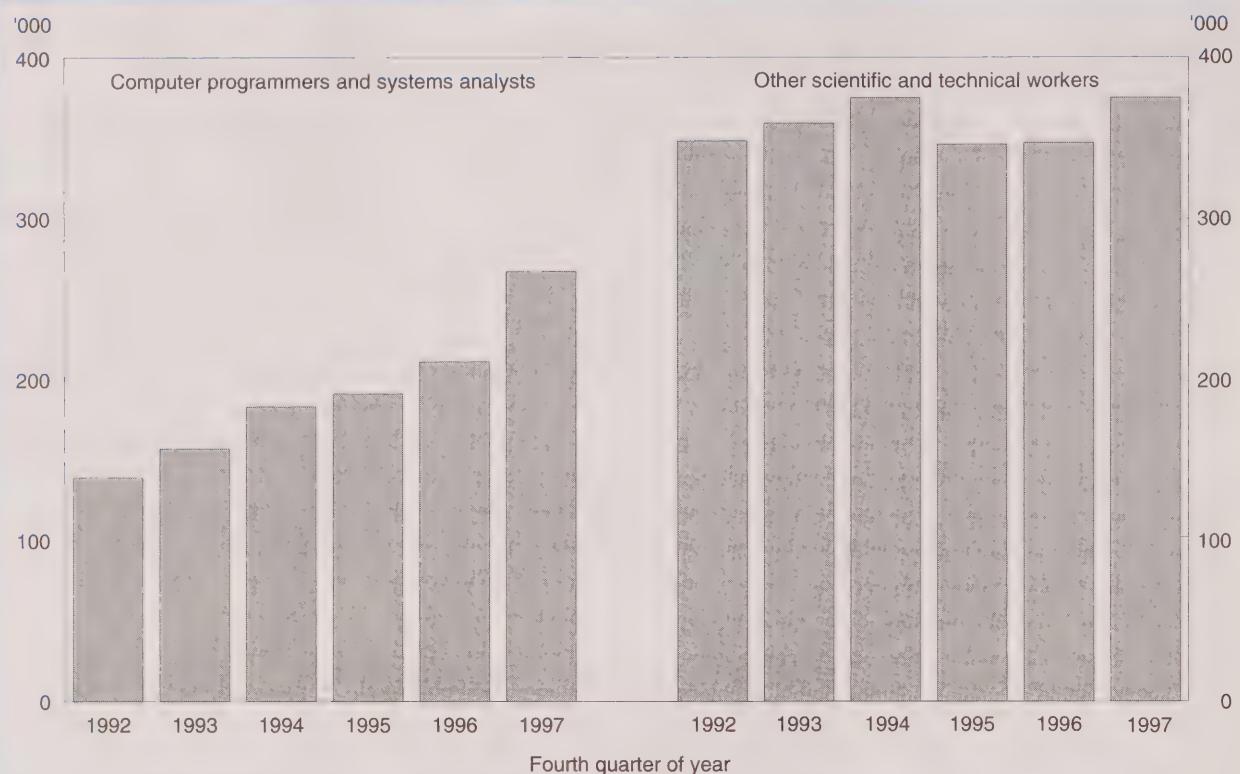
In the 1980 SOC, data processing and information technology managers cannot be isolated, since they are included with other managers. Estimates for this subgroup should be available when data based on the 1991 classification are published. The term "software engineer," included here as "computer programmer," will be coded in the 1991 SOC as "computer engineer" (C047). At the moment, the number of workers defined as such is small, but it may grow in the future.

For comparison purposes, other scientific and technology occupations from the 1980 SOC Major Group 21 (occupations in natural sciences, engineering and mathematics), excluding SOC 2183, cover professionals and technologists in the physical and life sciences, architecture, engineering, community planning, mathematics, statistics and related fields. Although these jobs may not provide a perfect comparison with programmers and systems analysts, they do offer meaningful reference points.

Dave Gower is with the Labour and Household Surveys Analysis Division. He can be reached at (613) 951-4616.

Chart

Job growth for computer programmers has been strong.



Source: Labour Force Survey

An occupation can expand in two ways. Workers can change jobs within a firm or employers can hire new employees. No data are available to measure the first scenario,² but the second can be confirmed easily. In the fourth quarter of 1997, 30% of programmers and systems analysts had been on the job for one year or less, compared with 17% of other scientific and technical workers. This is truly a dynamic field.

Wide variety of people entering the field

Who enters this profession; what are their educational qualifications; and how old are they?

An increase in employment in an occupation is a net product of both

inflows and outflows. Since no statistical series on job transitions is sufficiently current and detailed, the two measures cannot be separated. Instead, the overall employment change in various population subgroups must be examined.

Between late 1992 and 1997, men and women shared new programming opportunities roughly in proportion to their employment at the outset of the period. Of the 128,000 additional jobs, women gained 35,000 (Table 1). By 1997, men accounted for 74% of the profession, lower than that of other scientific and technical occupations (83%), but much higher than the overall workforce (55%).

Some 60% of the gain in employment occurred among workers aged 35 or over. And at the end of 1997,

just 20% of newly hired workers (in the job one year or less) were under 25. Most of the growth in employment, then, has been among persons old enough to have previous work experience.

Employment grew faster for workers with university degrees than for persons with other postsecondary education or training (120% versus 80%). The percentage of university graduates in this field increased from 42% to 48%.

People who had no completed postsecondary education were in the minority at the beginning of the period (26,000 of 139,000), and although their numbers have gone up over the last five years, their percentage growth has been relatively modest at 55%.

Table 1
Patterns of growth between the fourth quarters of 1992
and 1997

	Employment		Change		Distribution	
	1992	1997	'92-'97	'92-'97	1992	1997
	'000		'000		%	
All occupations						
Both sexes	12,847	14,032	1,185	9	100	100
Men	7,032	7,699	667	9	55	55
Women	5,815	6,333	517	9	45	45
Age						
15 to 24	1,995	1,960	-36	-2	16	14
25 to 34	3,668	3,608	-60	-2	29	26
35 to 44	3,522	4,075	553	16	27	29
45 and over	3,662	4,389	727	20	29	31
Education						
No postsecondary certificate	7,135	6,722	-413	-6	56	48
Postsecondary certificate or diploma	3,539	4,649	1,110	31	28	33
University degree	2,173	2,661	488	22	17	19
Computer programmers and systems analysts						
Both sexes	139	267	128	92	100	100
Men	104	197	93	90	75	74
Women	35	70	35	99	25	26
Age						
15 to 24	10	21	10	99	8	8
25 to 34	65	109	43	66	47	41
35 to 44	42	90	48	113	31	34
45 and over	20	47	27	131	15	18
Education						
No postsecondary certificate	26	41	14	55	19	15
Postsecondary certificate or diploma	54	98	44	80	39	37
University degree	58	128	70	120	42	48
Other scientific and technical occupations						
Both sexes	348	375	27	8	100	100
Men	294	310	15	5	85	83
Women	54	65	11	21	15	17
Age						
15 to 24	21	31	10	46	6	8
25 to 34	128	113	-15	-12	37	30
35 to 44	106	125	19	18	31	33
45 and over	92	105	13	14	27	28
Education						
No postsecondary certificate	55	54	-1	-1	16	14
Postsecondary certificate or diploma	114	139	24	21	33	37
University degree	179	182	3	2	51	49

Returning to the profession?

Some observers have speculated that workers who wrote computer programs years ago (and may have gone on to other lines of work) might return to help revise those programs for the Year 2000 challenge. Indeed, the number of programmers aged 45 or over grew by 27,000 between 1992 and 1997; not the largest absolute increase of any age group, but the highest proportionate increase (131% versus 66% to 113% for the younger age groups).

This growth is not in itself remarkable, given the baby boomers' move into middle age. For example, among other scientific and technical occupations, the number of workers aged 45 or over rose 14% overall, compared with 8% for all ages.

Does the striking difference in growth rates of older workers in programming and those in other scientific and technical occupations constitute a return of former programmers? Growth in this age group could occur for three reasons: new workers could be hired, others could transfer from within firms, and the remainder would simply grow older.

Only 12% of programmers hired within the past year were aged 45 or over in 1997. This is lower than the existing percentage of older workers in the profession (18%). Therefore, hiring is not the dominant vehicle for the growth in this group.

Nor is aging the main explanation for the rapid increase; this would have required a strong clustering of programmers in their early forties in 1992, which was not the case. Therefore, the phenomenon is best explained as the result of transfers from other occupational categories within firms.

What is not known is whether these people had worked as programmers in the past or were new to the profession. But stories of workers returning to help deal with the Year 2000 problem are not incompatible with the data.

Aside from all this, computer programming remains a young person's game. Software workers in 1997 were less likely than workers in other scientific and technical occupations to be 45 or over, and more likely to be aged 25 to 34. The proportions under 25 were the same in both groups.

Programmers not working long hours

Is the tight market for programmers reflected in long work weeks for these workers? Surprisingly, programmers averaged slightly less work time per week than other scientific and technical workers (38.8 hours versus 39.7) (Table 2). This gap was not caused by more part-time work. Programmers were slightly less likely to work part time (5% versus 6%). The difference in work weeks arose because full-time hours on average were lower (40.0 compared with 41.1). Furthermore, programmers were no more likely to moonlight (hold a second job) or to work overtime than were other workers.

Probably more surprising, programmers' average weekly hours went down over the five years that employment in this field was growing (from

39.5 to 38.8), whereas other scientific and technical workers' hours remained the same. By all accounts, therefore, the demand for software workers is not translating into more intense input from each worker.

These findings cast into doubt the workaholic image of computer software workers. In fact, programmers seem to have at least as much discretionary time as most other workers, and more than many.

Pay: good but not spectacular

Media reports have often focused on the substantial salaries of software workers, particularly those of new recruits. A full analysis of pay rates would need to take into account many factors, such as training and education, work experience, and personal ability – all beyond the scope of this paper. A cursory look, however, reveals earnings similar to those for workers in other scientific and technical occupations.³

On average, programmers and systems analysts earned more than workers overall in late 1997 (\$843 per week versus \$577), but slightly less than other scientific and technical workers (\$877). Because their weekly hours

were also slightly lower than those of other scientific and technical workers, their hourly equivalent pay was similar (\$22.24 versus \$22.33) (Table 3).

Programmers working for small establishments earned less than those in large companies, as was the case for other scientific and technical workers.

Average earnings of software workers hired within the past year have been on a par with those of new recruits in other scientific and technical professions (\$745 and \$746 per week). Larger firms have offered the best starting salaries (\$808 by those with 500 or more workers), noticeably lower than salaries offered to other scientific and technical workers in similar establishments (\$894).⁴ The proportion of software workers earning more than \$1,000 per week has been about the same as that for other scientific and technical workers (Table 4). This is also true for new recruits.

Self-employment increasing

One of the most notable features of the growth in software workers has been the increase in self-employment. In 1992, 17,000 programmers and

Table 2
Weekly hours of work, fourth quarter 1997

	Employment	'000	Proportion working part time	Average usual hours		
				All	Full-time	Part-time
Both sexes	14,032	20	36.6	41.5	16.4	
Computer programmers and systems analysts	267	5	38.8	40.0	16.5	
Other scientific and technical workers	375	6	39.7	41.1	15.7	
Men	7,699	11	40.1	43.2	15.7	
Computer programmers and systems analysts	197	4	39.4	40.4	15.6	
Other scientific and technical workers	310	5	40.3	41.6	15.9	
Women	6,333	30	32.3	38.9	16.7	
Computer programmers and systems analysts	70	8	37.0	38.6	17.8	
Other scientific and technical workers	65	9	36.6	38.7	15.1	

Source: Labour Force Survey

systems analysts were working for themselves. By 1997, this had more than tripled, to 58,000. Self-employment thus accounted for slightly under a third of the growth in the profession (41,000 out of 128,000). Because self-employed computer programmers are by definition part of the business services industry sector, it is not surprising that nearly half the growth of software workers in this industry was accounted for by self-employment (41,000 out of 89,000).

In spite of this growth, the bulk of programmers and systems analysts continued to work for others, in firms of varying sizes.⁵ Thirty-one percent worked in establishments of 500 employees or more, a slightly higher concentration than for other scientific and technical workers (24%). Newly hired programmers were somewhat more likely to be employed in small companies. However, the same was true of other scientific and technical workers, so this may simply reflect higher staff turnover in small firms.

Most new jobs are in business services

When managers need programming services they have two options: hire people to do the job, or purchase the service from an outside company or self-employed individual. Such specialized services are found in the business services industry sector.

Almost 70% of the 128,000 additional programming jobs created in Canada between late 1992 and 1997 were in business services. Contracting-out has increasingly been the arrangement of choice (Table 5).

Employers in finance, insurance and real estate; communication; and trade tended to hire their own programming staff, increasing their employment in this field by a factor of two over five years. In absolute numbers, however, the growth was fairly modest: between 7,000 and 16,000 workers.

Table 3
Employees and earnings, by size of workplace,
fourth quarter 1997

Workplace size	Computer programmers and systems analysts			Other scientific and technical workers		
	Average earnings		'000	Average earnings		\$
	Weekly	Hourly		Weekly	Hourly	
Total	209	843	22.24	326	877	22.33
Under 20	29	756	19.61	59	708	18.39
20 to 99	50	782	20.73	95	834	20.99
100 to 499	65	871	22.73	92	926	23.51
500 and over	65	902	24.10	79	997	25.51
Job tenure less than one year	63	745	19.56	59	746	18.58
Under 20	13	680	17.90	15	557	14.86
20 to 99	20	713	18.76	21	741	18.03
100 to 499	16	782	20.25	13	855	20.35
500 and over	14	808	21.47	11	894	22.81

Source: Labour Force Survey

Table 4
Employees by weekly earnings, fourth quarter 1997

Weekly earnings	Computer programmers and systems analysts		Other scientific and technical workers	
	Total	Job tenure less than one year	Total	Job tenure less than one year
'000				
Less than \$600	209	63	326	59
\$600 to \$799	39	21	65	22
\$800 to \$999	54	17	81	15
\$1,000 and over	55	13	76	10
Less than \$600	61	13	105	13
\$600 to \$799				
\$800 to \$999				
\$1,000 and over				
%				
Less than \$600	19	33	20	37
\$600 to \$799	26	26	25	25
\$800 to \$999	26	21	23	16
\$1,000 and over	29	20	32	21

Source: Labour Force Survey

Job creation not equal between regions

Almost one-half of all programmers were employed in Ontario (123,000 out of 267,000), the majority of them in Toronto. Quebec followed with 76,000, most of whom were in Montréal. In Alberta, a little over half of the 25,000 programming jobs were in Calgary, whereas the vast majority of British Columbia's 25,000 programmers lived in Vancouver (Table 6).

Virtually all programmers and systems analysts lived in larger cities; only 29,000 of 267,000 resided in small urban centres or rural areas.⁶ And these workers were much less common in the smaller provinces.

Between late 1992 and 1997, Ontario added the most positions (58,000), representing a growth of 90%. The proportion of programmers employed in the province remained unchanged at 46%. British Columbia had the fastest percentage growth (155%), led by Vancouver (179%). Montréal also saw a 120% growth in programming and systems analysis jobs. The increase in the Atlantic region was lower than in the rest of the country.

In spite of rapid growth in Vancouver, Montréal and Toronto, the highest concentration of programmers and systems analysts was in Ottawa-Hull: 5.3% of the employed.

Conclusion

As in other countries, the Canadian market for computer programmers and systems analysts has been strong in the last few years, especially in urban areas. Many of these new workers are self-employed, while others work for companies specializing in selling computer services to other firms.

In spite of the growing demand for programmers, these workers put in fewer weekly hours than other scientific and technical workers, and their average work week is declining. Employers have not had to drop their

**Table 5
Employment of computer programmers and systems analysts
in selected industries, fourth quarter 1992 and 1997**

	Employment		Change		Proportion
	1992	1997	'92-'97	'92-'97	1997
	'000	'000	%	%	%
All industries	138.9	267.1	128.2	92.3	1.9
Business services	45.4	134.0	88.6	195.2	12.8
Finance, insurance and real estate	14.2	30.1	15.9	111.6	3.8
Manufacturing	25.9	25.7	-0.2	-0.9	1.2
Government services	20.1	24.3	4.2	20.9	3.2
Communication	9.0	15.6	6.6	72.7	4.8
Trade	7.1	14.4	7.2	101.6	0.6
Community services*	8.2	11.1	2.9	35.9	0.4
Utilities	2.7	4.3	1.7	62.5	2.9
Transportation and storage	3.8	3.0	-0.7	-19.5	0.5

Source: Labour Force Survey

* Comprises education, health and social services, and religion.

**Table 6
Regional employment of computer programmers and systems analysts, fourth quarter 1992 and 1997**

	Employment		Change		Proportion
	1992	1997	'92-'97	'92-'97	1997
	'000	'000	%	%	%
Canada	138.9	267.1	128.2	92.3	1.9
Atlantic	4.9	7.6	2.7	56.0	0.8
Quebec	41.6	75.6	34.0	81.8	2.3
Ontario	64.5	122.9	58.4	90.5	2.2
Manitoba	3.7	6.9	3.2	86.9	1.3
Saskatchewan	2.0	4.3	2.3	112.7	0.9
Alberta	12.7	25.4	12.7	100.8	1.7
British Columbia	9.6	24.5	14.9	155.3	1.3
Selected census metropolitan areas (CMAs)					
Vancouver	6.4	18.0	11.6	179.4	1.9
Montréal	24.5	53.9	29.4	120.1	3.4
Edmonton	4.3	9.1	4.8	110.8	1.9
Toronto	34.4	70.2	35.8	104.2	3.1
Calgary	7.4	14.1	6.8	92.3	2.9
Ottawa-Hull	15.6	28.8	13.2	84.4	5.3
Winnipeg	3.4	5.8	2.5	72.4	1.6
Kitchener-Waterloo	2.8	4.0	1.3	44.8	2.0
Québec	7.4	7.7	0.3	3.5	2.4
Hamilton	5.1	5.2	0.1	2.8	1.6
London	3.0	2.8	-0.1	-4.9	1.4
Total CMA	123.7	238.0	114.3	92.4	2.6
Other urban	4.5	9.9	5.4	118.3	0.9
Rural	10.6	19.2	8.6	80.6	0.5

Source: Labour Force Survey

education requirements in order to meet the demand, and most of the new workers are over age 25, rather than recent graduates. Moreover, stories of grand salary offers do not seem to be reflected in the broad picture. Finally, software workers, whether new on the job or with more seniority, receive pay in line with other scientific and technical workers.

Once the Year 2000 problem has been solved, will the demand for programmers lessen, or will it continue to grow as requirements evolve? Society depends on computers for everything from personal banking to national security. Labour market and computer industry observers will want to monitor trends in these occupations. □

Update: First Quarter: 1998

In the first quarter of 1998, employment among programmers and systems analysts averaged 267,000, unchanged from the final quarter of 1997. Brief pauses in growth have been observed over the past five years.

Notes

1 In the early days of computers, memory and storage space were in short supply, so years were represented by 2-digit numbers (for example, 69 for 1969). This means that at the end of the century, programs still containing such date fields will appear to be set at 1900. Unless corrected, this problem threatens to create chaos in programs around the world.

2 The Survey of Labour and Income Dynamics is now developing a time series on transitions. At the moment, however, limitations of timeliness and sample size restrict the ability of this data set to reflect recent trends in detailed occupations.

3 Pay is only one aspect of job quality. Other factors, such as pensions, supplementary health and dental plans, and paid vacation leave are also important. Data from the Survey of Work Arrangements show that programmers and systems analysts employed in November 1995 enjoyed benefit levels close to those of other scientific and technical workers.

4 These are averages; some individuals receive rates considerably higher or lower.

5 Trend data on employment by size of employer do not exist back to 1992. The question on number of employees was introduced into the Labour Force Survey at the beginning of 1997, as were data on rates of pay.

6 These are defined as all areas not included in the 25 census metropolitan areas. It should be noted that the Labour Force Survey counts people where they live, not where they work. Some of the 19,000 programmers and systems analysts who live outside the large cities probably commute to these centres to work, or may work from home for clients in these larger places.

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Note: The survey on which this report is based was sponsored by Task Force Year 2000.

Working at home

Dominique Pérusse

Technological advances have made it possible for workers in many industries to work at home. This form of work arrangement, however, is not new. Prior to the Industrial Revolution, many trades were carried out at home. A door was commonly all that stood between the family quarters and the store or workshop. Even after urban workers had been assembled in factories, piece work done at home (particularly by women in the garment industry) enabled businesses to vary production volume and reduce costs, and provided work for unskilled workers (Boris, 1996). Today, with the development of tools such as the personal computer and the Internet, many workers – even those whose jobs require frequent exchange of information with peers – have the opportunity to work at home.

In November 1995, 16% of all workers regularly performed at least part of their usual work hours at home. One-half of these workers were paid by an employer; the other half were self-employed. More than one million employees worked at least part of the time at home. Slightly more than half of all self-employed workers (53% or 1.1 million) operated a business from their home.¹ This article examines employees who regularly perform paid work at home as part of their main job (see *Data sources and definitions*). It discusses trends in this practice, notes occupations and industries in which it occurs most frequently, and considers the quality of such jobs and the characteristics of the employees.

Working at home is on the rise

Between 1991 and 1995, the proportion of employees working at home increased from 6% to 9%. While the rise may be attributable in part to a

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Data sources and definitions

The Survey of Work Arrangements (SWA) has been conducted twice as a supplement to the Labour Force Survey: in November 1991, sponsored by Statistics Canada, and again in November 1995, sponsored by Human Resources Development Canada. The 1995 SWA adopted a new definition of working at home, which included regularly paid overtime (previously excluded). Consequently, the results from the two surveys are not directly comparable. Some information can be compared, however.

In 1991, the following question was asked:

"Some people work all or some of their regularly scheduled hours at home. Excluding overtime, does ... usually work any of his/her scheduled hours at home?"

In 1995, this revised version was used:

"Some people do all or some of their paid work at home. Does ... usually do any of his/her paid work at home?"

Data were collected on a worker's **main job**, that is, the one to which most hours were devoted during the week in

change of wording in the Survey of Work Arrangements,³ it is borne out by a strong increase in the United States. The proportion of American employees working at home increased from 9% in May 1991 to 17% in May 1997.⁴ If the American trend is any indication of the pattern in Canada, the number of people working at home will probably continue to increase.

Census figures show an increase of working at home among employees since 1971. For example, the proportion of those who worked at home at least three days a week grew from 2.8% in 1971 to 3.0% in 1981 and 4.0% in 1991.⁵

question, when a worker held more than one job.

In this article, work at home refers to any paid work carried out at home. This definition includes so-called **teleworkers**, that is, workers who use telecommunications tools or networks (such as computers and the Internet) to carry out their duties.²

The **census** collected information on place of work in 1971, 1981, 1991 and 1996. For the purpose of the census, a worker is considered to work at home if he or she does so at least three days a week. Respondents may not claim to work both on an employer's premises and at home. Recent data are not directly comparable with those from preceding years, because only the 1996 Census asked for the street address of the workplace.

The **General Social Survey** collects data on social trends. The 1992 survey was concerned with time use. In addition to collecting information on work arrangements, it included 10 questions designed to measure perceptions of time pressures and, by extension, stress levels of people who work at home.

The Canadian increase between 1991 and 1995 was widespread. According to the SWA, all goods industries (primary, manufacturing and construction) and most service industries were affected.⁶ Working at home was more common in the service sector (10%) than in goods industries (6%) (Table 1). In addition to the role played by services, factors affecting the growth of this practice include the development of communications technologies, the decreasing cost of personal computers and other office equipment, and the federal government's adoption of a work-at-home policy based on a 1992 pilot

Table 1
Employees working at home, by industry

	Employees					
			Work at home			
	Total		Number	Distribu-	Pro-	
	'000	%	'000	%	%	
All industries	11,055	100	1,003	100	9	
Goods sector *	2,958	27	174	17	6	
Primary	341	3	36	4	10	
Agriculture	111	1	22	2	19	
Manufacturing	2,011	18	102	10	5	
Durable	1,015	9	48	5	5	
Non-durable	996	9	53	5	5	
Construction	461	4	28	3	6	
Service sector	8,097	73	829	83	10	
Transportation, storage and communication	728	7	57	6	8	
Transportation and storage	425	4	26	3	6	
Communication	303	3	31	3	10	
Trade	1,859	17	110	11	6	
Wholesale	520	5	63	6	12	
Retail	1,338	12	47	5	4	
Finance, insurance and real estate	641	6	68	7	11	
Finance and insurance	480	4	37	4	8	
Real estate operators and insurance agencies	161	1	30	3	19	
Business services	620	6	73	7	12	
Government services	762	7	53	5	7	
Educational services	939	8	322	32	34	
Health and social services	1,229	11	73	7	6	
Accommodation, food and beverage services	1,319	11	73	7	6	

Source: Survey of Work Arrangements, 1995

* Includes utilities.

project. In addition, a number of large companies (for example, IBM and Bell Canada) are conducting their own experimental programs on working at home. Reflecting the trend among employees, more and more self-employed workers are also conducting business from home (Pérusse, forthcoming).

Advantages and disadvantages

Perhaps every worker dreams from time to time of being able to spend at least one day a week working at home, banishing all thoughts of traffic and bad weather. Most workers who put in hours at home in November 1995 did so, however, for work-related reasons (cited by 8 out of 10 such workers). Some 44% said they had no choice; 14% did so to achieve better working conditions; and 8% used home as the usual workplace. Only 20% worked at home for personal reasons.

This arrangement does not suit all employees and employers (see *Advantages and disadvantages of working at home*).⁷ Research has shown that the more disciplined, solitary, autonomous and qualified employees are, the more satisfied they are with working at home (St-Onge and Lagassé, 1995a). Although the practice is commonly believed to reduce the stress of balancing work

Advantages and disadvantages of working at home

	Advantages	Disadvantages
Employers	<ul style="list-style-type: none"> ● Increase in employee productivity ● Reduction in expenses for work space ● Easier recruitment and retention of staff 	<ul style="list-style-type: none"> ● Problems related to co-ordination and communication with employees ● Lack of control over work⁸ ● Problems with information security
Employees	<ul style="list-style-type: none"> ● Increased scheduling flexibility ● Easier to reconcile work and family responsibilities ● Reduced expenses for transportation, clothing and food ● Less time spent travelling 	<ul style="list-style-type: none"> ● Smaller social circle ● Fewer career possibilities ● Possible increase in workload⁹

and family life, the General Social Survey on time use suggests that these workers are neither more nor less stressed than workers in general, regardless of their occupation or number of children (Fast and Frederick, 1996). Another conventional belief is that working at home reduces highway congestion and transport-related pollution. This has not been proven; in fact, according to an American study, such workers compensate by making other kinds of trips (Pratte, 1996).

In addition to being able to reduce office space and parking costs by having employees work at home, many employers are spared additional costs for supplies at home. According to the SWA, 50% of such workers said their employer provided no supplies for working at home; another 12% reported that no supplies were required (Table 2). Despite this, computers or other equipment are indispensable in many occupations. Indeed, 38% said that some equipment was provided or costs were reimbursed. For instance, one home-based worker in 5 was provided with a computer in November 1995; one in 7 with a modem; and one in 10 with a fax. A large proportion of white-collar workers¹⁰ (especially teachers) said they were provided with nothing by their employer.

It depends on what you do

Workers who worked some of their hours at home tended to be employed in industries suited to this form of work, particularly education (32%) (Table 1).

In addition, working at home tended to be favoured by those who worked in isolation, or who used communications technologies. For example, teachers were more likely to spend some of their working hours at home. In fact, 43% of teachers did so part of the time (Table 3). Because of their large numbers, teachers made up 28% of all employees who regularly did paid work at home. In contrast, tasks

**Table 2
Equipment supplied by employer for work at home**

	Nothing supplied	No equipment required	Equipment supplied or costs reimbursed		
			Total	Computer	Modem, fax or other
%					
All occupations *	50	12	38	22	25
Directors, managers and administrators	38	12	50	34	37
Professionals	65	12	23	14	15
Teaching	72	13	15	7	7
Clerical	30	18	52	34	40
Sales	42	--	49	23	27
Service	55	--	--	--	--

Source: Survey of Work Arrangements, 1995

* Includes workers in primary occupations; processing, machining and fabrication; construction trades; transport equipment operating; material handling; and other skilled workers.

requiring direct contact with customers or colleagues, as well as services provided in a specific place, tended to be poorly suited to this arrangement.

Other occupations in which a large proportion of employees worked at home in November 1995 included directors, managers and administrators (17%) and farmers, horticulturists and animal breeders (16%). It was less common for workers in product fabricating, assembly and repair (2%) to work at home, because most of their tasks were performed in shops and factories. Similarly, few specialized service workers (3%) worked at home. For example, most salaried barbers and hairdressers worked in salons, while those who worked at home were generally self-employed. Medical and health workers were also unlikely to work at home, because they provided services in a specific location. Only 4% of this occupational group (including nurses, dieticians and laboratory dental technicians) worked at home.¹¹

The odd hour here and there

Even though working at home is increasingly common, employees who spend most of their working time there remain the exception. Among the one million workers who worked at home in November 1995, 421,000 did so less than five hours a week. Considering full- and part-time workers together, however, 206,000 spent at least half of their usual working hours at home, including 143,000 who worked only at home. Employees who performed at least 30 minutes of work at home each week worked an average 12 hours at home; those who spent at least half of their working time at home devoted 29 hours; and those who worked full time at home put in 31 hours.

Although 43% of teachers regularly did paid work at home, for many this involved only a few hours' work. The 206,000 teachers who did more than half an hour of paid work per week at home averaged 10 hours,

Table 3
Employees working at home, by occupation

	Employees							
	Work at home				Employees			
	Total	Number	Distribu-tion	Proportion	Minimum	30 minutes	'000	Average weekly time**
	'000	%	'000	%	%	%	'000	hours
All occupations	11,055	100	1,003 *	100	9	796	12	
Directors, managers and administrators	1,605	15	271	27	17	212		12
Professionals	2,246	20	424	42	19	318		10
Natural sciences, engineering and mathematics	466	4	43	4	9	34		8
Social sciences	245	2	30	3	12	22		10
Religion	26	--	16	2	60	--		--
Teaching	664	6	286	28	43	206		10
Medicine and health	654	6	26	3	4	--		--
Artistic, literary and recreational	190	2	24	2	12	--		--
Clerical	1,843	17	105	10	6	99		13
Sales	945	9	97	10	10	75		11
Service	1,402	13	39	4	3	37		29
Primary	197	2	18	2	9	16		19
Farming, horticulture and animal breeding	106	1	17	2	16	15		19
Processing, machining and fabricating	1 504	14	26	3	2	--		--
Product fabricating, assembling and repair	956	9	23	2	2	--		--
Construction trades; transport equipment operating; material handling; and other skilled workers	1,311	12	24	2	2	18		6

Source: Survey of Work Arrangements, 1995

* Includes 57,000 workers who did not report number of hours worked at home, as well as 150,000 who said they regularly put in less than 30 minutes work at home each week.

** These are hours worked by employees who did at least 30 minutes work at home each week.

although 15% performed at least half of their work at home (about 26 hours per week). While office workers and specialized service workers were less likely than professionals or administrators to work at home, they tended to work more hours on average. In addition, service employees who worked at home at least half the time did so 56 hours per week on average, far more than workers in all other occupations. Farmers, horticulturists and animal breeders were almost as likely to work at home as managers, but their situation was quite different: most home workers on farms (82% of those who worked at least 30 minutes

per week at home) worked *only* at home (only 21 hours per week on average). Managers, on the other hand, were less likely to work only at home, but put in more hours when they did so (35 hours).

Job quality

On average, employees who worked at home in November 1995 were better paid (\$20.15 per hour) than their peers who worked on the employer's premises (\$14.65 per hour) (Table 4). In addition, they were more likely to be covered by employment benefits. For example, 59% had an employer-

sponsored retirement plan, compared with 50% of other workers. These benefits were not necessarily related to the place of work, but rather to the age, occupation and industry of the employees. Such workers were more likely to be between 25 and 54, professional (primarily teachers) and working in service industries.¹²

The relationship between working at home and income and employment benefits can be measured, in part, by standardizing the data¹³ by selected characteristics (age, sex, industry and occupation). The results of this technique indicate that regardless of age,

Table 4
Hourly earnings and employment benefits

	Standardized average						
	Non-standardized data		Sex, age, occupation *		Sex, age, industry *		
	At home	Employer's premises	At home	Employer's premises	At home	Employer's premises	
\$/hour							
Hourly earnings	20.15	14.65	17.07	15.07	18.90	14.90	
					%		
Pension plan	59	50	45	51	50	51	
Supplementary health plan	66	58	53	59	60	59	
Dental plan	62	54	52	55	58	54	
Paid sick leave	70	56	56	57	64	56	
Paid vacation leave	69	73	66	73	71	73	

Source: Survey of Work Arrangements, 1995

* Three age groups, six occupation groups, eight industry groups.

sex and occupation, employees who work at home earn more per hour (\$17.07) than other workers in similar categories (\$15.07), even though the difference is considerably less than when non-standardized data are used.¹⁴

However, standardizing the data changes the picture regarding employment benefits. A lower proportion of people who work at home tend to enjoy these benefits. For example, only 45% benefit from an employer-sponsored pension plan, compared with 51% of others.

Standardized data for age, sex and industry continue to show a difference between those who work at home and those who do not, though the gap is less pronounced than it is when non-standardized data are used. Therefore, age, sex, occupation and industry characteristics of those who work at home only partly explain their superior wages and benefits.

Employee characteristics

Employees living with an employed spouse were more likely to work at home in November 1995 (12%) than sole breadwinners (8%), persons living alone (7%), or lone parents (10%) (Table 5).

Because working at home offers parents better opportunities to balance work and family, it is most often observed when there are children under 16 present. Furthermore, the practice is most prevalent among

workers (both men and women) of child-rearing age. For example, only 3% of young people (aged 15 to 24) regularly spent part of their working hours at home in November 1995, compared with 10% of workers aged

Table 5
Employees working at home, by sex and family type

	Both sexes	Men	Women
		%	
All paid workers	9	8	10
Youngest child under 6	11	10	12
Youngest child between 6 and 15	11	11	11
No children under 16	8	7	9
In a couple	11	10	12
Youngest child under 6	11	10	13
Youngest child between 6 and 15	12	12	12
No children under 16	10	9	11
Sole breadwinners	8	9	6
Youngest child under 6	10	10	--
Youngest child between 6 and 15	11	11	--
No children under 16	6	7	--
Dual-earner couples	12	11	13
Youngest child under 6	12	10	13
Youngest child between 6 and 15	12	12	13
No children under 16	11	10	12
Lone parents	10	--	9
Unattached individuals	7	6	9

Source: Survey of Work Arrangements, 1995

25 to 44, and 12% aged 45 to 54. For workers aged 55 and over, working at home decreased to an average 9%. Women were more likely to work at home than men (10% versus 8%), especially if they were raising families (Chart A).

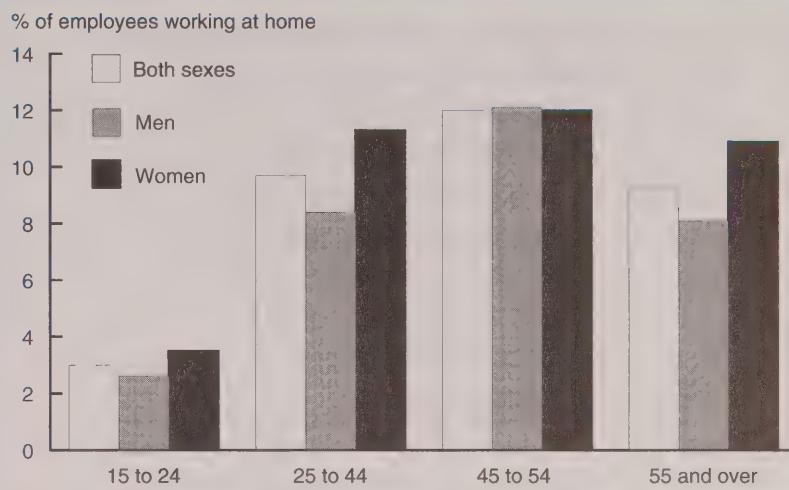
Education, which is strongly correlated with occupation, shows a distinct pattern for employees working at home. While 4% of those with a primary or partial secondary education had this arrangement in November 1995, and 7% of those with a high school diploma or non-university postsecondary certificate did so, 25% of workers with a university degree worked at home (Chart B).

Working at home was also more prevalent among workers who held more than one job. For example, 11% of those with multiple jobs worked at home in their main job, compared with 9% of workers with only one job. The proportion of employees who worked at home in their second paid job is unknown but conceivably just as great, since jobs providing supplementary income often involve tasks that can be carried out at home.

No more traffic jams!

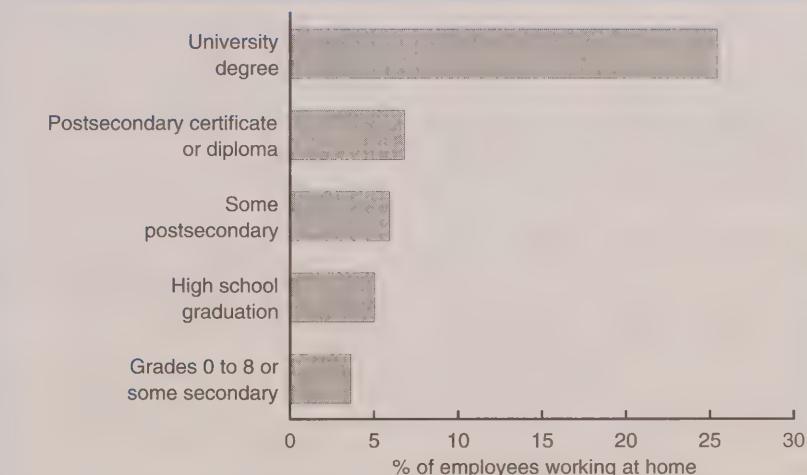
The Industrial Revolution moved workers from the home to the factory. Ironically, technological advances have made it possible for workers to live in rural areas while maintaining frequent contact with the office in town: in November 1995, only 9% of urban workers spent part of their working time at home, compared with 10% of rural workers. At the same time, workers away from large centres have been able to avoid long commutes to work. Data for highly remote regions, while less reliable because of small sample sizes, appear to indicate that working at home was even more prevalent in those areas. The practice was also more common in certain provinces: in Alberta, for example, 12% of employees worked at home, whereas in Quebec only 7% of workers did so (Chart C).

Chart A
Few young people work at home.



Source: Survey of Work Arrangements, 1995

Chart B
University graduates are far more likely than others to work at home.

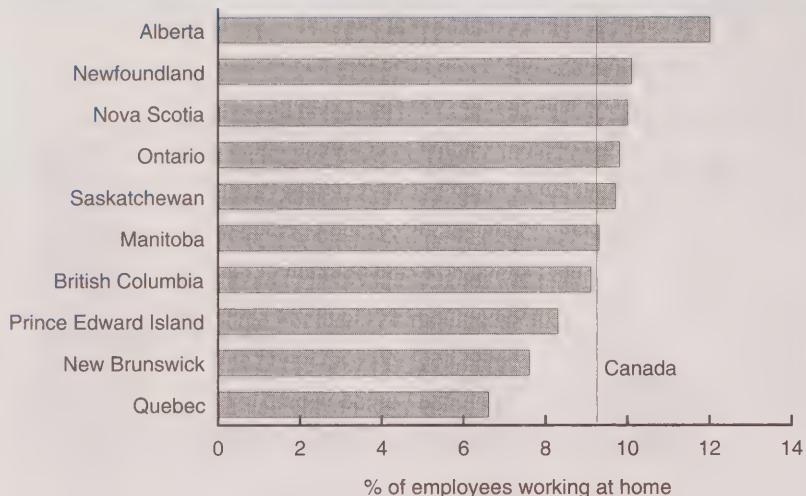


Source: Survey of Work Arrangements, 1995

Conclusion

Working at home has become increasingly common. While many people do so only a few hours a week, the number who carry out at least half of

their working hours at home is increasing. Workers more likely to work at home include those aged 45 to 54, women, teachers, managers, farmers and service industry workers.

Chart C**Working at home is most common in Alberta.**

Source: Survey of Work Arrangements, 1995

Because most employees work at home for work-related rather than personal reasons, this trend is probably of equal benefit to employers. □

Notes

1 Independent business people have their own motivations and working conditions; their situation will be the subject of a separate study (Pérusse, forthcoming).

2 St-Onge and Lagassé (1995b) present several definitions of working at home.

3 Usual paid overtime was included in 1995 (see *Data sources and definitions*). However, the number of usual paid overtime hours is small compared with total hours. An employee who works 40 hours per week at an employer's premises and who declares 10 overtime hours at home would work at home 20% of the time. Therefore, the new, more inclusive, definition increases the number of workers who report only a small proportion of hours worked at home. The change in the question had little effect on the number of employees who carried out at least half of their work hours at home. In 1995,

206,000 employees worked at home most of the time. This represented an increase of 59,000 workers since 1991.

4 The U.S. Bureau of Labor Statistics conducted three surveys, in May 1985, May 1991 and May 1997. The 1991 and 1997 definitions of working at home are generally comparable, and similar to that of the 1995 SWA (Deming, 1994 and U.S. Bureau of Labor Statistics, 1998).

5 Data from the 1996 Census are not directly comparable with those from previous years.

6 Only the finance, insurance and real estate industry, which experienced profound structural changes in this period, showed a slight decrease.

7 St-Onge and Lagassé (1995b) review the main North American studies on this topic, while Codère (1995) explains the advantages and disadvantages in detail.

8 In a private survey conducted among large and medium-sized Canadian companies (KPMG, 1997), three-quarters of employers disliked the lack of personal contact with employees, and close to half mentioned the lack of direct control. In fact, remote supervision of employees

involves a complete redefinition of this concept, since the number of hours spent performing a task is often a criterion for evaluating quality of work.

9 Unions have sometimes argued that workload might increase for those who work at home — who often put in long hours to achieve fixed performance objectives — and for other workers who are expected to put in the same effort.

10 White-collar workers include managers, professionals, and clerical, sales and service workers.

11 Most physicians are self-employed.

12 On the other hand (but to a lesser extent), they were also more likely to be women, non-unionized and employed by small businesses, factors that account for a lower rate of benefit coverage.

13 Data standardization is a statistical technique that makes it possible to assess observed differences in a particular characteristic between one group and another, assuming that these two groups are identical in some respect. In the case of paid work at home, it is of interest to know whether merely working at home is associated with pay that differs from that obtained from working at an employer's premises. To eliminate the effect of age, sex and occupation on workers' wages, respondents are categorized as home worker/non-home-worker in such a way that each combination of variables is represented in the same proportion as it is in the overall group of workers.

14 Standardization of results cannot control for all differences between two populations for two reasons. First, there is variation within groups for which controls have been implemented (for example, university professors compared with elementary school teachers); second, only some factors have been controlled for (age, but not experience, for example). In this article, pay and employment benefits have been studied in two ways: by controlling for 36 age/sex/occupation groups (3 age groups, 6 occupation groups), and by controlling for 48 age/sex/industry groups (3 age groups, 8 industry groups). The number of SWA respondents is not sufficient to support controlling results for a larger number of groups. Therefore, it is possible that the remaining wage advantage for these workers is related to factors other than merely working at home.

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Moonlighting: A growing way of life

Deborah Sussman

Moonlighting is becoming a way of life for an increasing number of Canadian workers. In the last 20 years, the number of multiple jobholders or moonlighters has more than tripled, far surpassing the 40% growth in employment in general over the same period. Except for a brief stall between 1993 and 1995, the number of moonlighters, at least among women, has continued to grow.¹

The reasons for holding more than one job vary. Some workers may wish to provide security against income fluctuations from self-employment or potential job loss. Companies are increasingly hiring and shedding workers as demand for their goods and services fluctuates.² In response, more people are arming themselves with several jobs in the event that one disappears. Others may need to supplement income from their main job. And others, particularly students and young people, whose skills may be limited, may wish to broaden their work experience. Moonlighters may also take on extra jobs for other non-financial reasons, such as personal interest.

This article compares today's moonlighters with those of 10 and 20 years ago. Where differences exist, it examines some underlying reasons for these shifts. Finally, it offers the U.S. experience as a basis for comparison (see *Data sources and definitions*).

Moonlighters more likely to be women

In 1997, about 723,000 workers, or just over 5% of the employed, held more than one job. The proportion of

Data sources and definitions

The main source of data for this article is the Labour Force Survey (LFS), a monthly survey involving about 55,000 households across Canada. According to the LFS, any person (including the self-employed) who holds two or more jobs, or owns and operates two or more businesses simultaneously, is a multiple jobholder. The main job or business is the one involving the greatest number of usual hours during the survey reference week. Information on full- or part-time status, industry, occupation and wage refers to the main job.

Data on industry of second job, work schedules, non-standard work arrangements, non-wage benefits, job permanency, union coverage and reasons for moonlighting are from the 1995 Survey of Work Arrangements (SWA), a supplement to the November 1995

LFS. The 1995 SWA also collected data on workplace size and wages and salaries (for more information, see Statistics Canada, 1998).

Data on work patterns of second jobs are from the 1991 Survey of Work Arrangements, a supplement to the November 1991 LFS. The 1991 SWA also collected data on the industrial distribution of second jobs, reasons for moonlighting, work schedules, non-standard work arrangements and union coverage. Questions on moonlighting were asked only of multiple jobholders who were paid workers in the main job.

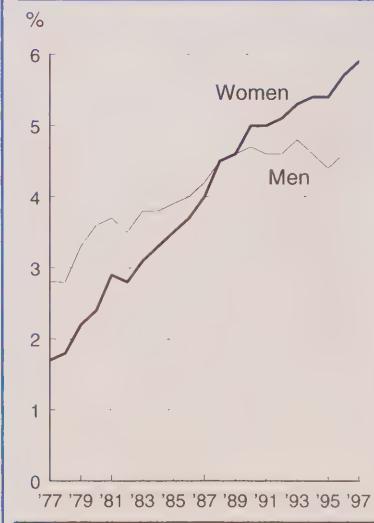
U.S. data are from their Current Population Survey (CPS), which is generally comparable with the LFS. The minimum age for the CPS is 16, compared with 15 for the LFS.

moonlighters has increased more or less steadily since 1977, when the rate³ was only 2%. In addition, the sex distribution has changed dramatically over the period (Chart A). In 1977, three-quarters of moonlighters were men, whereas by the early 1990s, roughly half were women. By 1997, women slightly outnumbered men as moonlighters, despite making up just 45% of the employed. This is reflected in their higher moonlighting rate (6%, compared with 5% for men).

Education and age make a difference

Moonlighting continues to be more prevalent among those with at least some postsecondary education than among those with a high school diploma or less (6% versus 4% in 1997). Some 22% of moonlighters held a university degree in 1997, compared with only 19% of single jobholders.

Chart A
Multiple jobholding is now more prevalent among women.



Source: Labour Force Survey

This pattern was more apparent among women, reflecting the high rates of moonlighting in health and social services and in educational service industries, which usually require some postsecondary training and in which many women are employed.

Young adults (aged 20 to 24), many of whom have had particular difficulty securing full-time employment, had the highest rate of moonlighting in 1997 (7%). This rate has grown steadily since 1977 (Table 1). The moonlighting rate for students in this age group was somewhat higher (8%). This may be related to the growing financial burden of postsecondary education. Teenagers (those aged 15 to 19) had the second-highest rate (6%). Among them, non-students were much more likely to moonlight than students (8% versus 4%). These non-students, with a high school

education or less, may face serious obstacles in finding full-time work with satisfactory wages. Because the number of teenaged moonlighters has doubled since 1977, while the number of working teens has fallen by more than 25%, the moonlighting rate for this age group has almost tripled over the last two decades.

Where are moonlighters found?

In 1977, the occupation⁴ with the highest moonlighting rate was farming;⁵ by 1997, medicine and health, and social sciences had the highest incidence of moonlighting (Table 2). Specifically, the number of moonlighters whose main job was in medicine and health increased more than sevenfold over the period, while the number of moonlighters in social science occupations rose sixfold.

Medicine and health jobs are characterized by high rates of part-time employment (28%), and by schedules that may more readily lend themselves to multiple jobholding. Other occupations with high rates of part-time work (notably, service; artistic, literary and recreational; and sales) were also associated with above-average rates of moonlighting in 1997.

The industrial pattern mirrored the occupational one: the highest rates in 1997 were in health and social services (8%), education (7%) and primary industries (7%) (Table 3). With respect to the second job, according to the Survey of Work Arrangements, in November 1991 moonlighters were most likely to hold their second job⁶ in retail trade (17%), health and social services (including religion) (16%), educational services (15%), or accommodation, food and beverage services (12%).

Moonlighters whose main job was in educational services, health and social services, or retail trade were the most likely to hold their second job in the same industry as their first. By contrast, those whose main job was in manufacturing seldom held their second job in that industry (Cohen, 1994).

More jobs lead to longer hours

It has been suggested that people who work part time use multiple jobholding as a means to increase their hours. In 1977, only 20% of moonlighters worked part time in their main job, whereas by 1997, 35% did so. In addition, the moonlighting rate among part-timers (10%) was more than twice as high as that of full-time workers (4%). This pattern was more pronounced among women. Involuntary part-timers⁷ were even more likely to moonlight (12%), indicating that the inability to find full-time work may be an important motivation to hold more than one job.

Table 1
Multiple jobholders by age and sex

	Multiple jobholders			Multiple jobholding rate		
	1977	1987	1997	1977	1987	1997
'000						
Both sexes	240	510	723	2.4	4.1	5.2
15-19	21	40	42	2.1	4.4	5.8
20-24	31	77	92	2.0	4.7	7.1
25-44	126	285	414	2.7	4.3	5.4
45-64	59	103	170	2.2	3.4	4.1
65+	3	5	5	1.7	2.8	2.2
Men	175	297	355	2.8	4.2	4.6
15-19	12	21	19	2.3	4.5	5.2
20-24	19	41	38	2.2	4.7	5.5
25-44	95	163	203	3.2	4.3	5.0
45-64	47	67	91	2.6	3.7	3.9
65+	2	4	3	1.7	3.2	2.3
Women	65	213	368	1.7	4.0	5.9
15-19	9	19	23	2.0	4.3	6.5
20-24	12	36	55	1.8	4.6	8.8
25-44	31	121	211	1.9	4.2	6.0
45-64	12	36	79	1.4	3.1	4.5
65+	--	--	--	--	--	--

Source: Labour Force Survey

Table 2
Multiple jobholders by occupation

	Multiple jobholders			Multiple jobholding rate		
	1977	1987	1997	1977	1987	1997
	'000			%		
All occupations	240	510	723	2.4	4.1	5.2
Managerial/administrative	16	58	81	2.3	3.9	4.2
Natural sciences	7	16	22	2.0	3.7	3.5
Social sciences	4	10	25	3.0	4.8	8.0
Religion	--	3	2	--	8.4	5.3
Teaching	19	34	52	4.0	6.4	7.8
Medicine and health	9	32	64	2.0	5.1	8.5
Artistic, literary and recreational	6	17	26	4.5	7.1	7.9
Clerical	34	75	94	1.9	3.6	4.9
Sales	24	48	79	2.2	4.1	5.6
Service	30	79	118	2.4	4.8	6.3
Primary	2	4	5	1.6	3.0	3.5
Farming	26	33	35	5.1	6.8	7.8
Processing	8	9	12	2.0	2.5	3.4
Machining	4	8	6	1.7	3.0	2.4
Fabricating, assembling and repairing	18	26	35	2.0	2.6	3.1
Construction	14	22	24	2.1	3.1	3.4
Transport equipment operating	12	19	24	2.9	4.1	4.5
Material handling	5	9	12	2.1	3.0	3.7
Other crafts	3	6	7	2.3	3.8	4.2

Source: Labour Force Survey

A related issue is the number of usual hours worked, which has fallen for both moonlighters and single jobholders since 1977.⁸ By 1997, moonlighters usually worked an average 32.6 hours per week in the main job, and an average 13.9 hours in other jobs. This means that on average, moonlighters usually worked 46.5 hours in all jobs. So, although their usual hours in the main job were not much lower than the average 37.0 for single jobholders, moonlighters more than made up for the shortfall by taking on additional jobs.

Moonlighting women worked fewer average usual hours than their male counterparts. In 1997, they averaged 40.3 hours at all jobs, compared with 52.8 for men.

Moonlighting and the family

Does marital status or the presence of children have an effect on the decision to moonlight? One might expect single persons, particularly young people with no family obligations, to be more inclined to moonlight because they have both more time and less work experience than others. Indeed, among moonlighters under the age of 25, the incidence was greater for those without children (8% versus 6%). One might also expect parents with young children to moonlight in order to meet household expenses. This was not the case in 1997, however; people with or without dependent children (under the age of 18) living at home took on extra jobs at roughly the same rate.

Among workers with employed spouses, the incidence of moonlighting was higher for those with self-employed partners (8%) than for those whose spouses were paid workers (5%). Hourly earnings of spouses seemed to make little difference to moonlighting rates. Surprisingly, the workers least likely to moonlight were those with spouses either unemployed or not in the labour force.

Table 3
Multiple jobholders by industry

	Multiple jobholders			Multiple jobholding rate		
	1977	1987	1997	1977	1987	1997
	'000			%		
All industries	240	510	723	2.4	4.1	5.2
Primary	26	36	38	4.6	6.1	7.0
Manufacturing	38	55	61	1.9	2.6	2.8
Construction	13	22	27	1.9	3.2	3.6
Transportation and storage	12	19	25	2.4	3.7	4.2
Communication	5	11	15	2.2	3.8	4.6
Utilities	2	4	6	2.0	3.3	4.3
Trade	36	83	123	2.1	3.8	5.1
Wholesale	12	23	30	2.4	4.1	4.5
Retail	24	60	93	1.9	3.7	5.4
Finance, insurance and real estate	10	26	30	1.8	3.5	3.7
Business services	7	30	46	2.1	4.9	4.6
Government services	22	37	38	3.0	4.3	4.8
Educational services	27	48	70	3.7	5.8	7.3
Health and social services	16	59	117	2.0	5.0	8.2
Accommodation, food and beverage services	10	33	57	2.2	4.5	6.3
Other services	14	40	66	2.8	5.3	6.5

Source: Labour Force Survey

Provincial distribution

Moonlighting rates differ greatly across Canada. Variations in the distribution of employment by industry and occupation, as well as in self-employment, part-time and unemployment rates, may all play a role in provincial moonlighting rates.

In 1997, the province with the highest rate was Saskatchewan (10%), followed by Manitoba (8%) and Alberta (7%), all of which have a high agricultural base. Newfoundland had the lowest rate at 3%. Provincial standings have not changed much since 1977, except that moonlighting has grown most in British Columbia over the period, and least in Prince Edward Island (Chart B).

In provinces where even one job can be hard to find, it should not be surprising that second jobs are also scarce. To illustrate, the Atlantic provinces and Quebec, with higher-than-average unemployment rates, have also had lower-than-average moonlighting rates.

Moonlighting has also been associated with part-time work (Cohen, 1994). Of the provinces with high moonlighting rates, all but Alberta exhibited above-average part-time employment rates in 1997. Newfoundland, with the lowest rate of multiple jobholding, had the lowest part-time rate.

Moonlighting and self-employment

The link between multiple jobholding and self-employment has continued to strengthen over the past two decades. In 1977, less than half (42%) of all moonlighters owned and operated a business, farm or professional practice – or helped a family member do so – as their main or secondary job. By 1997, 51% of all moonlighters were doing so.

What is the attraction? Depending on the nature of the primary job, self-employment can offer income stability or act as a bridge between careers. It may also provide a commercial outlet for a hobby or personal interest (Webber, 1989). In 1997, about one in five moonlighters was self-employed in the first job, while about two in five were self-employed in the second (Table 4). The former ratio has remained about the same since 1977; the latter has grown considerably.

How do they do it?

Some workers moonlight simply because their work schedules permit them to do so. The 1995 Survey of Work Arrangements examined the work practices of paid workers in the main job, including whether or not they worked at home. In November 1995, moonlighters were less likely than single jobholders to work Monday to Friday only (49% versus 62%), and more likely to work fewer than five days a week (10% versus 5%) or only

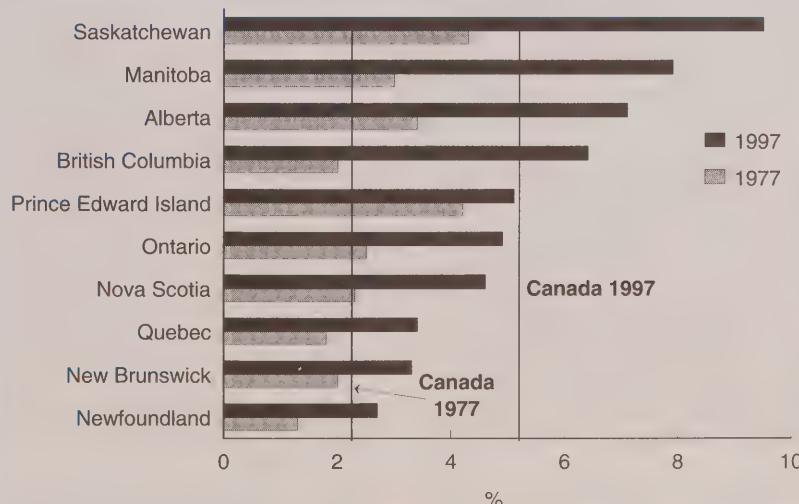
on weekends (14% versus 11%). They were also more likely to have their days vary from week to week (21% versus 19%), to work evening, night or graveyard shifts, or other irregular schedules (28% versus 20%), or to work at home (11% versus 9%). These non-standard work arrangements most likely provide the opportunity for additional jobs, which can be scheduled during days off or around alternate shifts.

The 1991 Survey of Work Arrangements also looked at the work patterns of second jobs. In November 1991, moonlighters generally worked at the second job one or two days a week, often on weekends. Almost half of all moonlighters reported that these days varied from week to week (Siroonian, 1993).

Reasons for moonlighting

Knowing where and how moonlighting occurs still does not entirely explain why an individual might take on a second job. The 1995 Survey of

Chart B
Moonlighting rates have more than doubled in the western provinces.



Source: Labour Force Survey

**Table 4
Multiple jobholders by job category, 1997**

	Second job		
	All classes	Paid worker	Self-employed *
'000			
Main job			
Both sexes	723	419	304
Paid worker	574	351	223
Self-employed *	148	68	81
Men	355	170	185
Paid worker	270	137	133
Self-employed *	85	33	52
Women	368	249	120
Paid worker	305	214	91
Self-employed *	63	34	29
%			
Both sexes	100	58	42
Paid worker	100	61	39
Self-employed *	100	45	55
Men	100	48	52
Paid worker	100	51	49
Self-employed *	100	39	61
Women	100	68	32
Paid worker	100	70	30
Self-employed *	100	54	46

Source: Labour Force Survey

* Includes unpaid family work.

Work Arrangements asked workers the main reason for holding multiple jobs. The most popular response was "to meet regular household expenses" (28%). However, "enjoys the work of the second job" was the second most common response (20%), suggesting that non-financial considerations are important for some. In fact, almost half of all moonlighters cited non-financial reasons.⁹ This was true for both men and women. Moreover, those who were self-employed in the main job were more likely than paid workers to mention "enjoys the work of the second job" and "other: work-related." Paid workers were more likely to list "to meet regular household expenses" and "other: economic" (Table 5).

Reasons for moonlighting varied by age and hours of work (at the main job) as well. Teenagers were more likely to cite "save for the future" as

**Table 6
Benefits provided with main job**

	Multiple jobholders	Single jobholders
%		
Pension plan	36	52
Supplemental health plan	42	60
Dental plan	43	55
Permanent job	83	89
Union coverage *	30	38

Source: Survey of Work Arrangements, November 1995

* Includes both union members and persons who are not union members, but who are covered by collective agreements.

the main reason, while those aged 45 to 64 were more likely to report "enjoys the work of the second job." Meeting regular household expenses was the reason given most often by those between 25 and 44. This was also a concern among those working part time (less than 30 hours). Those who worked full time were more likely to cite enjoyment of the second job as the main reason for moonlighting.

Lower earnings and fewer job-related benefits

Lower hourly wages are associated with higher moonlighting rates. Specifically, workers who earned less than \$10.00 per hour in the main job had the highest moonlighting rate (6%) in 1997, while those who earned \$20.00 or more per hour had the lowest (4%). A similar pattern emerged with respect to weekly family earnings, lending credence to the idea that moonlighting offers a way of augmenting family income to satisfy financial needs. This concurs with the results from the 1995 SWA, in which more than half of respondents cited financial reasons for moonlighting.

The 1995 Survey of Work Arrangements also asked (paid workers only) about any job-related benefits of the

**Table 5
Reason for holding multiple jobs**

	Main job	
	Paid worker	Self-employed *
%		
Total	100	100
Meet regular household expenses	29	24
Pay off debts	8	7
Buy something special	3	1
Save for the future	9	9
Gain experience	4	2
Build up a business	12	11
Enjoy the work of the second job	18	28
Other: economic	11	6
Other: work-related	7	12

Source: Survey of Work Arrangements, November 1995

* Includes unpaid family work.

Multiple jobholding in the United States¹⁰

The Canadian labour market has behaved quite differently from the American one over the past two decades. For example, growth in employment – particularly full-time employment – has been rapid in the United States, but more gradual in Canada. Unemployment has also been much lower in the United States than in Canada.

How have the multiple jobholding experiences of the two countries differed over the same period? According to the U.S. Current Population Survey, 7.9 million persons, or 6% of all employed workers in the United States, held more than one job in 1997 (Table 1). This rate is higher than Canada's, but the gap has declined over the last 20 years. During the 1970s, the number of American multiple jobholders grew at about the same pace as total employment, keeping the rate around 5% throughout the decade. By contrast, in Canada the number of multiple jobholders grew much faster than total employment over the period, raising the rate to 3% by 1980. Throughout the 1980s, fuelled by the growing availability of jobs as well as workers' desire to meet economic needs, multiple jobholding in the United States rose to unprecedented numbers, with the rate levelling off at the beginning of the 1990s to around 6%. By 1996, the incidence of multiple jobholding was virtually the same for men and women (Stinson, 1997). Multiple jobholding in Canada also accelerated during the 1980s, and it has continued to rise; furthermore, since 1990 the rate for women has been higher than that for men.

In both countries, the growth in multiple jobholding masks important changes in the composition of moonlighters. In the United States, declines among men have been offset by rapid increases among women. On the other hand, moonlighting rates for both sexes have risen in Canada. Among American

Table 1
Multiple jobholding rates by age, sex and marital status, 1997

	United States				Canada			
	Both sexes	Men	Women	%	Both sexes	Men	Women	%
All ages (16+)	6.1	6.1	6.2	4.6	4.0	4.0	5.4	5.4
16-19	5.0	4.2	5.7	5.8	5.0	6.6	5.0	6.6
20-24	6.5	5.9	7.3	7.0	5.3	8.8	5.3	8.8
25-34	6.1	6.2	6.0	5.2	4.7	5.8	4.7	5.8
35-44	6.6	6.7	6.5	4.6	4.0	5.4	4.0	5.4
45-54	6.6	6.4	6.8	3.6	3.0	4.2	2.8	2.9
55-64	5.1	5.3	4.8	2.8	2.8	2.9	1.3	1.0
65+	3.1	3.3	2.6	1.2	1.3	1.0		
Single (never-married)	6.3	5.7	7.1	5.6	4.4	7.1		
Married	5.9	6.3	5.4	4.2	3.8	4.7		
Other	6.8	6.0	7.4	4.8	3.6	5.6		

Sources: Canada, Labour Force Survey; United States, Current Population Survey

Table 2
Multiple jobholders' average usual hours of work, 1997

	All jobs	Main job	Second job
United States			
Both sexes	48.3	35.2	13.1
Men	52.6	38.5	14.0
Women	43.5	31.5	12.0
Canada			
Both sexes	45.6	31.9	13.7
Men	51.6	36.3	15.3
Women	40.2	28.0	12.2

Sources: Canada, Labour Force Survey; United States, Current Population Survey

men, those aged 35 to 44 had the highest multiple jobholding rate in 1997; among Canadian men, 20 to 24 year-olds were the most likely to moonlight. In both the United States and Canada, women between 20 and 24 displayed the highest rates of moonlighting.

Table 3
Multiple jobholding rates by industry, 1997

	United States	Canada
%		
All industries	6.1	4.6
Primary	4.9	5.2
Manufacturing	4.5	2.6
Construction	4.4	2.6
Transportation and storage	5.3	3.8
Communication	5.0	4.4
Utilities	5.8	4.0
Trade	5.4	4.5
Wholesale	5.3	3.8
Retail	5.4	4.8
Finance, insurance and real estate	5.9	3.1
Business services	5.7	3.4
Government services	8.7	4.8
Educational services	9.6	7.1
Health and social services	8.0	7.8

Sources: Canada, Labour Force Survey; United States, Current Population Survey

Multiple jobholding in the United States¹⁰ (concluded)

In the United States, married men were more likely to hold more than one job, while in Canada, single men were more likely to do so. In both countries, women without a spouse were more likely to moonlight than were married women.

American moonlighters worked longer hours than their Canadian counterparts. But the difference was attributable to longer hours at their main job (Table 2).

The highest rates of multiple jobholding in the United States were for workers whose main job was in educational services, government services or health and social services. In Canada, this was true of those working in health and social services, education, or the primary industries (Table 3).

In both the United States and Canada, teachers in colleges and universities, as well as those in elementary and secondary schools, and workers employed in health assessment and treating occupations, reported high rates of moonlighting. Workers in protective service occupations in the United States (police officers and firefighters) also had a high incidence of multiple jobholding. In Canada, this held true for firefighters, but not for police officers (Table 4).

main job (Table 6). Multiple jobholders were less likely than single jobholders to have a pension plan (36% versus 52%), a health plan (42% versus 60%) or a dental plan (43% versus 55%). They were also less likely to have union coverage (30% versus 38%) or to be in a permanent job (83% versus 89%). Some of the difference can be explained by the higher proportion of part-time workers among moonlighters, as part-time work is often associated with lower benefits. However, even after adjusting for this, moonlighters were still less likely to have job-related benefits in their main job. What is not known, however, is whether the second job provided any of the benefits lacking in the primary

**Table 4
Multiple jobholding by occupation and education, 1995**

	United States	Canada
%		
Total	6.3	4.4
Occupation		
College faculty	14.1	8.7
Elementary and secondary school teachers	10.7	5.9
Registered nurses	9.6	7.6
Firefighters	28.1	11.0
Police officers	10.8	2.9
Education		
Secondary or less	4.6	3.3
Some postsecondary	7.4	5.6
Postsecondary certificate or diploma	7.6	4.9
University degree	8.2	5.2

Sources: Canada, Labour Force Survey; United States, Current Population Survey

job. If not, it may have provided them with the additional income needed to purchase some of these benefits privately.

Conclusion

Moonlighting has grown considerably over the past two decades, at least among women. Just over 5% of Canadian workers held more than one job in 1997, up from 2% two decades ago. People of various ages, occupations and work arrangements are drawn to moonlighting for a number of financial and non-financial reasons. Whether to supplement their income or to broaden their work experience, these workers have adopted a practice that seems unlikely to diminish in the future. □

Notes

1 The subject of moonlighting has been covered in previous *Perspectives* articles. See Webber (1989), Cohen (1994) and Pold (1995).

2 A recent study on changes in job tenure and job stability found an increase in the proportion of short-term jobs (six months or less) and a decrease in the proportion of medium-term jobs (between six months and five years) created over the period studied (1981 to 1994). The proportion of long-term jobs had not changed, suggesting that firms may increasingly be using a core of full-time skilled employees and hiring contingent workers when the demand arises (Heisz 1996). Osberg, Wien and Grude (1995) also found evidence of a growing use of permanent employees supplemented by short-term workers when required.

3 The rate or incidence of multiple jobholding refers to the number of multiple jobholders in any group as a percentage of all workers in that group.

4 Occupation and industry refer to the main job.

5 This reflects the "off-farm work" phenomenon, which has been well documented in studies such as Bollman and Smith (1988).

6 The 1991 Survey of Work Arrangements sought information on the industry of a worker's second job. (For details about the survey, see *Data sources and definitions*.) The Survey of Labour and Income Dynamics (SLID) provides information on industry for all jobs held. Its latest available data are for 1994. Data for 1995 and 1996 will be released in 1998.

7 Involuntary part-timers would rather work full time but are unable to find full-time employment.

8 This is largely a function of the change in the mix of full- and part-time workers for both groups. In both cases, the proportion of full-time workers has fallen over the period, particularly for moonlighters.

9 The SWA provided a choice of four non-financial reasons: gain experience, build up business, enjoys the work of the second job, and other: work-related. It listed the following possibilities for financial reasons: meet regular household expenses, pay off debts, buy something special, save for the future, and other: economic.

10 The U.S. definition of multiple jobholding differs from the Canadian one. Persons with two self-employed jobs, or who were self-employed or unpaid family workers in the primary job and held a secondary job as an unpaid family worker, are excluded from the U.S. count. Such individuals are included in the Canadian one. For this section only, the Canadian data have been adjusted to reflect the American definition of moonlighting.

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Income after separation – people without children

Diane Galarneau

This article complements a study published last year that described the sharp decline in the economic well-being of women in the year following a marital breakup (Galarneau and Sturrock, 1997). Using the same methodology, this paper examines the situation of previously married persons who separated between 1987 and 1993. Unlike the earlier study, which addressed only people with children at the time of separation, it focuses on the situation of those with no children at that time.¹

This article examines changes in family composition and after-tax family income. It also compares sources of income before and after separation.²

Separated persons and their families

The sample for this study is divided into two groups. The first, older, consists of persons who may have had children before the breakup, but who separated after they had left home. The second, younger, group consists of persons who probably never had children (see *Data source*).

Persons who were childless at separation tended to be older than their counterparts with children. Some 41% of men and 31% of women were at least 50 years of age at the time of the breakup, true of only 7% and 3%, respectively, of men and women with children.

Even if no children were present at separation, a small proportion of separated persons had children living with them in the following year (T_{+1}). In some cases, children had probably

Data source

This article is based on the Small Area and Administrative Data Division's (SAADD) Longitudinal Administrative Databank (LAD). (For more information see Statistics Canada, 1997). At the time of writing, this databank covered a 14-year period from 1982 to 1995. It is derived from SAADD's T1 file of families created from Revenue Canada income tax returns. The LAD represents a random sample of 10% of all taxfilers and their dependants who have social insurance numbers (SINs). This is a new version of the LAD, which formerly covered only 1% of taxfilers and persons with SINs. The database is "longitudinal," meaning once individuals are selected for inclusion they remain in the file year after year. Some selected individuals may be missed in certain years because they did not file a tax return, or did so after the deadline. In 1993, the non-weighted LAD contained information on 2,083,590 individuals; when weighted, it covered over 96% of the population (according to post-censal estimates).

returned home; in others, the person separated just before having a child or formed another couple with someone who already had children.

The proportions of separated men and women with children at home one year after the breakup were similar (8% and 11%, respectively) (Table 1), increasing over time (rising to 20% and 22% five years after separation).

One year after breaking up, the majority of separated men and women were unattached (59% in both cases). This figure decreased over time but remained high. Nevertheless, a sizeable proportion of separated persons formed new unions: 37% of men and 29% of women were again in a relationship one year after separation, with proportions rising over time.³

Adjusted family income

This study looks only at the *income* of separated persons, not at their assets and debts. Therefore, post-separation income cannot be used as a measure of standard of living. Persons aged 50 and over usually have more assets than younger persons (a family home, often mortgage-free; larger retirement funds, and so on). Both federal and provincial family legislation require that such assets be shared by the spouses after a breakup. Taking assets and debts into account could have changed some conclusions reached here.

Change in income is based on the after-tax income of all members of the family, in constant 1993 dollars, adjusted for the number of family members (adjusted family income [AFI]). The change in AFI is measured at different points in time (T_0 , $T_{+1} \dots T_{+5}$) against the AFI for the year preceding separation (T_{-1}). Where necessary, support payments were subtracted from the payer's income.

In general, the post-breakup situation of persons in this study, who were childless at separation, is similar to that of persons who formed the study group in the previous paper, and who did have children. Women experienced a median loss⁴ of AFI, whereas men registered a gain. However, the size of loss or gain was relatively smaller when no children were involved. Thus, the disparity between men's and women's AFI is less pronounced here than in the earlier study.

One year after separation, "childless" women experienced a median loss of 16%⁵ in their adjusted family income (compared with a loss of 23% for those who had children at the time of separation). This loss decreased over time, so that by the fifth year (T_{+5})

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Table 1
Family composition after separation, spouses without children * at home at the time of the breakup

	T ₀	T ₊₁	T ₊₂	T ₊₃	T ₊₄	T ₊₅
'000						
Separated men						
Sample size	279	210	165	130	99	63
			%			
Couples	17	37	43	49	54	58
Lone parents	7**	5	4	3	3	2
Unattached individuals	76	59	53	48	43	40
Proportion of men living with children under 18	5	8	12	15	18	20
'000						
Separated women						
Sample size	251	199	162	128	97	62
			%			
Couples	12	29	37	41	46	50
Lone parents	14**	12	11	10	9	9
Unattached individuals	74	59	53	49	45	42
Proportion of women living with children under 18	7	11	14	16	19	22

Source: Longitudinal Administrative Databank, 1986 to 1993

* In this study, the upper age limit for a child is 18.

** There are more lone parents than persons with children under 18 years of age because some lone parents may have children only over 18.

their income was only 5% lower than that prior to separation (Table 2). Men realized a small median gain in adjusted family income (2% in the year following separation), a gain that was maintained throughout the observation period. (Men with children at separation realized gains of 10% in the year following the breakup.) These observations show the importance of taking into account the number of family members when evaluating the effect of separation on income.⁶

The situation of women who became part of another couple was similar to that of men who did so. But while both sexes subsequently enjoyed a gain in median income, women fared better than men. Persons who lived alone following a separation experienced a median loss of income, although men's was rela-

tively low (-2%, compared with women's -27% in the year following the breakup). This gap remained sizeable throughout the observation period.

Men who became heads of lone-parent families realized a median gain of 2% in the year following the breakup, which was maintained during subsequent years. By contrast, women in the same situation experienced a median loss of 16%, which increased to 19% five years after separation.

Income distribution

One year after separation, while the median change in AFI was positive for men as a group, the gain applied to only 51% of them. This proportion remained stable during the observation period. In other words, nearly half experienced a loss in AFI.

Also, while women as a group experienced a median loss in AFI, 39% actually made gains, a proportion that increased to 47% five years after the breakup.

These figures vary according to family type. Persons who became part of a new couple after a breakup – both men and women – realized gains more often than those who remained unattached. For example, five years after separation, 53% of men in a relationship experienced gains, compared with 49% of unattached men. Among women, 56% of those who were once again part of a couple experienced gains in AFI, compared with only 38% of unattached women.

The proportion of men who experienced losses in AFI was lower than that of women (49%, compared with 61%). Furthermore, the monetary loss for women was greater (from \$1,000 to \$3,300) than the gain for men (from \$100 to \$400).

Income levels

In the year prior to separation, the median adjusted family income (in 1993 dollars) was \$22,500 for men and \$22,600 for women (Table 3).⁷ One year after separation, women's AFI was 82% of men's, but later rose to 94% (T_{+5}), indicating that women's financial situations improved over time. However, these ratios vary according to family type. Women who again became part of a couple experienced more favourable conditions; indeed, their AFI was often higher than that of men in the same situation. Unattached women's income was 76% of unattached men's in the first year after separation, rising to 91% in the fifth year. Lone mothers had only 67% of lone fathers' income in T_{+1} , a situation that prevailed five years after the breakup. However, throughout the study period, the proportion of separated women who were lone parents remained fairly low, in fact dropping from 12% to 9%.

Table 2
Median change in AFI after separation

	T ₀	T ₊₁	T ₊₂	T ₊₃	T ₊₄	T ₊₅
%						
Men	3	2	1	2	2	2
Couples	19	6	4	3	3	3
Lone parents	3	2	4	4	5	2
Unattached individuals	-2	-2	-3	-2	-2	-1
<i>Median change (\$)</i>	500	300	100	200	300	400
Women	-27	-16	-12	-9	-7	-5
Couples	12	6	6	8	8	8
Lone parents	-24	-16	-17	-18	-13	-19
Unattached individuals	-32	-27	-25	-24	-21	-18
<i>Median change (\$)</i>	-6,000	-3,300	-2,500	-2,000	-1,400	-1,000
%						
Persons who experienced a gain in AFI	52	51	51	51	51	51
Men	52	51	51	51	51	51
Couples	67	57	54	53	53	53
Lone parents	55	53	53	53	54	50
Unattached individuals	48	48	47	48	48	49
Women	32	39	42	44	45	47
Couples	60	57	56	57	56	56
Lone parents	34	39	39	39	42	39
Unattached individuals	28	30	32	33	36	38

Source: Longitudinal Administrative Databank, 1986 to 1993

Some people may have withdrawn from the labour market after the breakup; they either stopped working or cut back their hours of work.⁹ This may have been a personal choice (the decision to retire) or the result of difficult economic conditions (a cut in hours of work because of an economic downturn). This reduction in earnings was partly offset by income from other sources and, to a lesser extent, by social assistance. Without more information it is hard to attribute the change solely to the event of separation. Moreover, since more than a third of separated persons were aged 50 or over, some may have decided to retire.

Payers and recipients

Before separation, 4% of men were already making support payments¹⁰ (to a former partner); five years after the breakup the proportion of payers was 10%. Only 1% of separated women received such payments prior to separation; at the end of the study period, 5% did.

Income sources

Post-separation sources of *individual* income⁸ were similar for men and women. After the breakup, the proportion of individuals with employment income dropped and that of recipients of social assistance and other income (pensions, investment income, dividends and various tax credits) rose (Table 4).

The proportion of total income from each source before and after separation, however, varied to a lesser extent. In fact, only employment income dropped, offset in part by the increase in income from other sources. Social assistance and support payments still represented only a small part of the income of separated persons.

Table 3
Median AFI, after tax and after subtraction of support payments

	T ₋₁	T ₀	T ₊₁	T ₊₅
1993 \$				
Separated men	22,500	22,700	23,000	23,300
Couples	22,500	24,900	24,100	25,000
Lone parents	...	24,600	24,000	21,500
Unattached individuals	...	21,900	22,300	20,200
Separated women	22,600	16,500	18,800	21,900
Couples	22,600	24,700	25,200	26,600
Lone parents	...	15,700	16,000	14,500
Unattached individuals	...	15,400	16,900	18,300
Male-female ratio of AFI	1.00	0.73	0.82	0.94
Couples	1.00	0.99	1.05	1.06
Lone parents	...	0.64	0.67	0.67
Unattached individuals	...	0.70	0.76	0.91

Source: Longitudinal Administrative Databank, 1986 to 1993

One year after separation, 13% of men paid support and 7% of women received support. These proportions subsequently fell off slightly, reaching 10% and 5%, respectively, five years after the breakup.

In the case of couples with no children at separation, women were unlikely to receive support payments; this explains why the proportions of payers and recipients are so low. For couples with children at the time, 35% of women said they received support and 44% of men reported paying it. The *Divorce Act, 1985* tends to encourage the economic independence of the ex-spouses after their breakup; hence, the economic bond is often maintained only when there are children involved.

Family situation

A smaller proportion of payers and recipients formed new couples than was the case with separated persons generally (Table 5). The difference was especially marked for women: five years after separation, only 14% of support recipients had become part of a new couple, compared with 50% of separated women in general. For men, the gap was somewhat smaller: 45% of payers were part of a couple five years after separation, compared with 58% of separated men overall. The earlier study showed that payers and recipients with children at separation were similarly hesitant to form a new union.

A larger proportion of recipients than payers had children living with them five years after separation (43% versus 16%). Almost all of the remaining men were unattached, while women tended to fall into two categories: unattached individuals (46%) and lone parents (39%).

Payers are better off

Overall, support payers appeared to fare better than the majority of separated men. They generally realized

**Table 4
Income sources of separated men and women, as well as tax and support payments**

	T ₋₁	T ₀	T ₊₁	T ₊₅
%				
Separated men as % of all men with income				
Employment	81	79	78	75
Employment Insurance	19	19	19	18
Support	-	-	-	-
Social assistance *	10	13	14	19
Other **	73	82	83	82
As % of all men paying ...				
Tax	82	82	83	83
Support	4	11	13	10
Separated women as % of all women with income				
Employment	82	78	77	73
Employment Insurance	19	20	21	20
Support	1	6	8	5
Social assistance *	6	14	16	17
Other **	68	87	89	88
As % of all women paying ...				
Tax	76	74	76	75
All separated men				
Employment	79	78	77	75
Employment Insurance	3	3	3	3
Support	-	-	-	-
Social assistance *	1	2	2	3
Other **	16	17	18	19
Tax paid	22	22	23	22
Support paid	1	2	3	2
All separated women				
Employment	83	78	76	74
Employment Insurance	3	4	4	4
Support	--	2	3	1
Social assistance *	2	3	4	4
Other **	12	14	14	17
Tax paid	17	18	18	18

Source: Longitudinal Administrative Databank, 1986 to 1993

* Social assistance includes non-taxable income, such as Workers' Compensation, the federal supplement and social assistance.

** Other income consists of C/QPP benefits, investment income and dividends, limited partnership income, other income, pension and RRSP income, Child Tax Benefits, GST credit, provincial tax credit and rental income.

**Table 5
Change in family composition and percentage change in AFI
after separation, for payers and recipients ***

	T ₀	T ₊₁	T ₊₂	T ₊₃	T ₊₄	T ₊₅
%						
Family composition						
Payers (men)	100	100	100	100	100	100
Couples	11	25	33	38	40	45
Lone parents	8	6	6	5	4	3
Unattached individuals	81	69	61	58	56	52
Recipients (women)	100	100	100	100	100	100
Couples	4	10	13	15	17	14
Lone parents	31	32	33	31	31	39
Unattached individuals	64	58	54	55	52	46
Percentage change in AFI						
Payers (men)	11	8	7	8	5	10
Couples	12	11	11	13	10	12
Lone parents	2	-3	3	-4	3	--
Unattached individuals	13	8	5	6	4	10
Median change (\$)	2,600	2,100	1,800	1,900	1,500	2,300
Recipients (women)	-51	-39	-34	-34	-30	-32
Couples	-17	11	3	19	-2	5
Lone parents	-32	-27	-27	-27	-25	-30
Unattached individuals	-58	-46	-43	-45	-43	-45
Median change (\$)	-13,800	-10,100	-9,600	-9,500	-8,600	-7,600

Source: Longitudinal Administrative Databank, 1986 to 1993

* In this article, all payers are men, and all recipients, women.

gains in AFI, ranging between 5% and 10% over the observation period (compared with changes between 1% and 2% for non-payers).

This was also true for men who had been in families with children (Galarneau and Sturrock, 1997).¹¹ Generally, payers had a higher AFI than non-payers. In this study, one year after separation payers' median AFI was \$28,500, compared with \$22,100 for non-payers; five years after separation, the corresponding income levels were \$27,000 and \$22,800, respectively.

Support recipients experienced a median loss much greater than that

of separated women generally (39% versus 16% in T₊₁). They subsequently recovered part of this, but still faced a 32% reduction in AFI (Table 5). In general, recipients had a lower median AFI than non-recipients, even though they were receiving support payments.

Unattached women experienced the largest losses, followed by women heading lone-parent families. Because so many support recipients fell into these categories, their median losses were greater than those of separated women in general (most of whom became part of a new couple).

These observations tend to confirm the conclusions of MacDonald (1989) and Rogerson (1990), who found that the divorce legislation's encouragement of economic independence of former spouses affects two specific groups: women in their thirties and forties who are left with custody of children following a divorce, and older women who generally did not participate in the labour force during their marriage.

Conclusion

This article deals with the financial situation of separated persons who had no children at the time of marital breakup. It complements a previously published study on the situation of separated persons who did have children. A number of differences between the subjects in the two studies are noted. These differences may be explained primarily by age.

Generally, separated persons with no children at the time of marital breakup were older than those with children. Women were more likely to remain unattached over the five-year study period when they had no children at the time of separation. As a consequence, their adjusted family income decreased less, and the contrast with men's AFI was less obvious. Also, with no children living at home at the time of the breakup, fewer men were payers and fewer women, recipients of support than had been the case in the earlier study. These factors help to explain why differences between the sexes were less marked in the current study.

Unlike separated spouses who had children at the time of the breakup, those who were childless experienced a greater change in their income sources following separation. This was especially true in the case of employment income, which tended to decrease after separation, for both men and women. By contrast, income from other sources tended to increase. □

■ Notes

1 In this article, only children under 18 are considered.

2 The data source makes no distinction between divorces and separations. Thus, the term "separation" includes both separations and divorces, and the term "separated persons" also includes persons who are divorced.

The term "married" is used here for simplicity. In fact, some people living common law are counted as married (see *Data source* in Galarneau and Sturrock, 1997).

3 The earlier study noted an equally strong propensity of separated individuals to become part of another couple. When this did not occur, women were in most cases heads of lone-parent families and remained so throughout the observation period, while men tended to live alone.

4 This article looks at median changes only, and not mean changes. The median is more appropriate for measuring income, because it is not excessively influenced by extreme values. The median separates the universe into two equal parts: 50% of individuals are below the median and 50% are above.

5 In the year in which separation occurred, their loss in adjusted family income was actually 27%. However, this figure must be used with caution, given the many changes in living arrangements taking place that year.

6 To adjust family income, an equivalence scale based on low income measures (LIMs) is used. This scale is made up of

"equivalence factors" that give an approximation of the extra expense represented by each additional household member. The more household members, the greater the equivalence factor. In the case of a couple with children at the time of the breakup, the woman frequently has custody of the children, while the man often lives alone. The woman's family income (which generally consists solely of her personal income, often lower than the man's) is then divided by the equivalence factor. The latter has a value of 1.4 for a woman and one child, 1.7 for a woman and two children, and so on. The man's family income (which generally consists solely of his personal income) is also divided by the equivalence factor, but the latter often has a value of only 1, since proportionally more men live alone in the year after separation. This explains why the difference in AFI between men and women with children at separation is more pronounced. In the present case, there are few children, so the gap in AFI tends to represent the income differential between men and women, which is brought out when a couple separates.

7 It is normal to observe a slight difference here, since this is not the family income of men and women who came from the same households. In other words, the sample is not made up of former spouses of the same union, but of unrelated men and women who happened to separate from their spouses at a given point in time.

8 These are sources of personal income, as opposed to family income.

9 The LAD sheds little light on the motivations behind people's decision to reduce their hours of work.

10 Women are excluded from the support payers' category, while men are excluded from the support recipients' group. These exclusions were necessary because of the small number of records in each of these categories. In addition, tax data do not distinguish between support paid for children and support for the ex-spouse. Support payments for the ex-spouse and for children are therefore combined.

11 Given the family income adjustment, the presence of children tends to decrease the man's family income. When the man lived alone after separation, his salary was no longer adjusted for the presence of children, and hence was maintained at a higher level than in his pre-breakup situation. However, this adjustment was necessary to reflect the effect of children on the family income level of both men and women.

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The RRSP Home Buyers' Plan

Hubert Frenken

Since the Home Buyers' Plan (HBP) was implemented in February 1992, more than 650,000 Canadians have withdrawn \$6.2 billion from their registered retirement savings plans (RRSPs) to finance the purchase or construction of a home (Table 1). Under this plan, first-time home buyers are permitted to withdraw up to \$20,000 from their RRSPs without incurring the tax charges normally associated with such withdrawals. Amounts withdrawn must be fully repaid to the home buyers' RRSPs in equal, annual instalments within 15 years (see *HBP repayments*).

The first HBP instalments were due before March 1, 1996 and had to be reported on 1995 tax returns. Using tax data, this article presents information on the extent of the repayments and the degree of success HBP participants had in meeting their obligations that year. The data also permit first-time analysis of the characteristics of the participants. (Although preliminary 1996 information was available at the time of analysis, the most recent detailed data for study were for 1995.)

Effects of the plan

It is not possible to determine precisely the proportion of Canadians with RRSPs who have participated in the HBP, since it is not known how many Canadians have accumulated RRSP savings; however, considering the large number of annual contributors, the proportion appears to be small. For example, 6 million persons reported RRSP contributions on their 1996 tax returns. The 119,000 people who took advantage of the HBP that year represented just 2% of contributors.²

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HBP repayments

Withdrawals under the HBP program are still considered part of the participant's RRSP assets, but are temporarily redirected from traditional investments to a stake in the individual's home. Unlike regular withdrawals, which incur withholding taxes at the time of removal and possible additional charges when the annual tax return is filed, these withdrawals are not taxed. Neither are they reported on the annual return. However, the funds must be used to buy or build a qualifying home within a specified period of time, and repayments in annual instalments must be made over a 15-year period. Each year, Revenue Canada advises the par-

ticipant of this requirement. Missed or insufficient payments are treated as regular cash withdrawals and taxed accordingly.

For example, someone who withdrew \$15,000 in 1992 is required to repay \$1,000 to an RRSP annually from 1995 to 2009. Failure to make this payment means that \$1,000 of RRSP income will be added to the filer's tax return for the year in which payment is missed. A defaulted payment cannot be caught up; that is, the individual may not deposit \$2,000 in a subsequent year and claim all of this as an HBP payment!

The effect of this program on the housing market is virtually impossible to determine. No doubt, many participants would otherwise have been unable to purchase a home. Others may have had sufficient resources, but decided to increase their down payment and reduce their outstanding mortgages.

Whether being able to purchase a home offsets the reduction in retirement savings and income is difficult to estimate. It depends on whether home values increase and whether one will have a mortgage-free home for retirement, with the reduced living costs that implies. Even if the amounts withdrawn are repaid as

Table 1
Participation in the Home Buyers' Plan *

	Participants	Withdrawals
	'000	\$ millions
All periods	650	6,194
February 26, 1992 to March 1, 1993	159	1,536
March 2, 1993 to March 1, 1994	102	1,011
March 2, 1994 to December 31, 1994	56	455
January 1, 1995 to December 31, 1995	79	718
January 1, 1996 to December 31, 1996	119	1,136
January 1, 1997 to December 31, 1997	132	1,306
January 1, 1998 to March 18, 1998	4	32

Source: Revenue Canada, Individual Returns and Payment Processing Directorate

* Number and amounts recorded as of March 18, 1998. Some additional applications may have been approved but not yet added to the database.

scheduled, there is a loss of compound, tax-free interest that would otherwise have been earned by the RRSP savings.³ Moreover, failure to meet the repayment schedule results in even greater losses. A missed or inadequate payment not only incurs an immediate tax liability, but is also permanently lost as a future source of retirement income.

Many fail to meet the required payments

In 1995, one-third of those obligated to make instalment payments either failed to do so or paid insufficiently. Almost 154,000 taxfilers reported nearly \$173 million in payments that year, for an average of \$1,120. Nearly 3,000 of them did not pay a sufficient amount, however (Table 2). Of the \$2.2 million they owed, these taxfilers deposited less than \$1.6 million. Moreover, almost 76,000 did not meet their obligation at all (nearly \$46 million, \$600 on average). The total shortfall of over \$46 million represented 21% of the amount due that year.

The default rate continued in 1996. Preliminary data show that, of the 300,000 individuals who were required to make repayments that year, 97,000 (33%) failed to do so. Of the \$271 million due that year, \$62 million (23%) was not paid.

Fewer women than men

The 1995 tax data show that 128,000 HBP participants with payments due were men and 101,000 were women. Women's share of HBP participants seems to be directly related to their percentage of RRSP contributors. They represented 44% of taxfilers with 1995 HBP payments due—similar to their share of RRSP contributors in recent years.

On average, however, women appear to have removed higher amounts from their RRSPs under the

Table 2
HBP instalments paid and not paid, 1995

	Both sexes		Men		Women	
	Number	Amount	Number	Amount	Number	Amount
	'000	\$ millions	'000	\$ millions	'000	\$ millions
Total	229	219.1	128	120.7	101	98.3
Payment	154	172.5	86	94.0	68	78.6
Complete	151	171.0	84	92.9	67	78.1
Partial	3	1.6	2	1.1	1	0.4
Shortfall	78	46.5	44	26.8	34	19.8
No payment	76	45.9	42	26.3	33	19.6
Partial payment	3	0.7	2	0.5	1	0.2

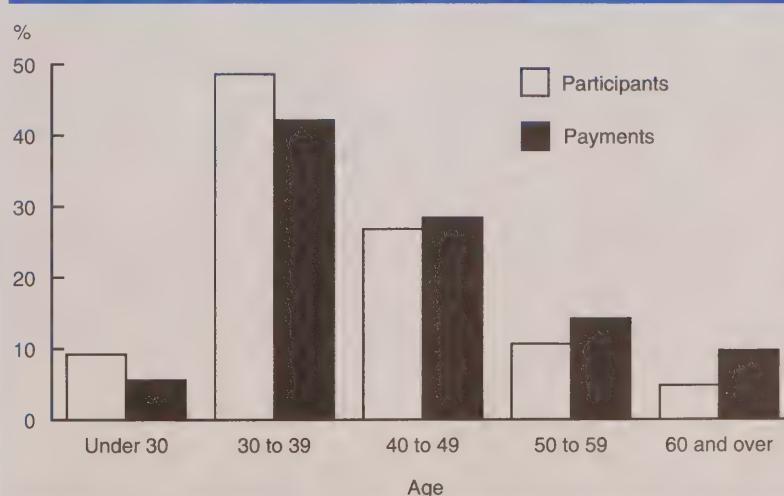
Source: RRSP room file

HBP than have men: their average repayment was \$1,160 (versus \$1,090). Furthermore, although their share of annual RRSP contributions has always been much lower than men's (only about 35% in recent years), they paid 46% of the 1995 HBP instalments and were responsible for 43% of the 1995 shortfall.

Most participants are in their thirties

Nearly half the taxfilers with HBP instalments due in 1995 were between age 30 and 39. Moreover, this age group accounted for 42% of the amounts paid or owed (Chart A). These percentages seem high, given that only 24% of all taxfilers and 29%

Chart A
Almost half of HBP participants are in their thirties.



Source: RRSP room file

of RRSP contributors that year were in their thirties, and that they were responsible for just 27% of all 1995 contributions. However, persons in this age group are more likely than those at other ages to acquire their first homes. Older RRSP contributors, particularly those in their fifties and sixties, are apt to own a home already. Relatively few younger individuals are in a financial position to buy a home and, even if they were, they would probably have few or no RRSP savings to draw from.

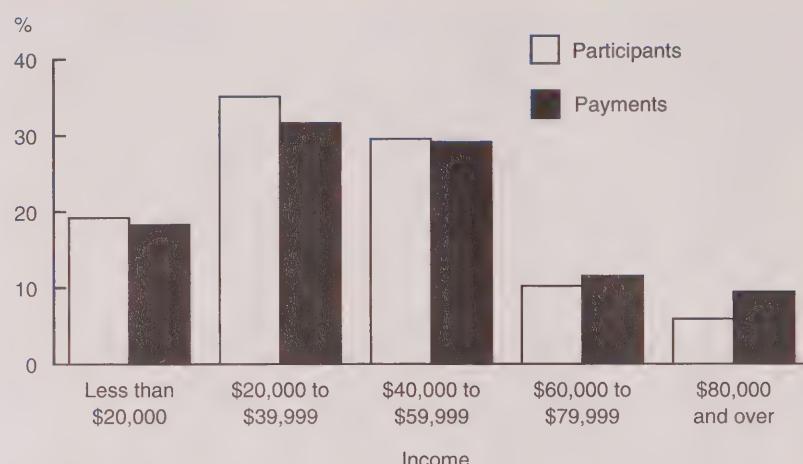
Nearly 60% of HBP participants were under age 40. Those in their forties represented 28% of taxfilers with payments and 25% of those without. Surprisingly, persons aged 60 and older, who made up less than 4% of plan participants, represented 7% of the 78,000 who had not met their obligation. Some in this latter group may have experienced a reduction in their income through job loss or early retirement and may not have been in a position to make the required payments. Others may not have considered HBP payments a priority, because of the relatively few years remaining before they would have to collapse their RRSPs.⁴

Many participants have low incomes

One in every five taxfilers with HBP instalment payments due had income under \$20,000 in 1995. This income group was also responsible for nearly one-fifth of the instalment payment amounts actually made (Chart B). These proportions seem high compared with their shares of RRSP contributors and contributions: in 1995, less than 10% of contributors had incomes below \$20,000 and they deposited just 7% of the total that year.

More than one-third of taxfilers with HBP instalments due had incomes between \$20,000 and \$39,999 and their combined payments were nearly one-third of the total. However, the proportion of 1995 RRSP

Chart B
HBP participants typically have incomes between \$20,000 and \$60,000.



Source: RRSP room file

contributors for this income group was almost 40%. This discrepancy is probably explained by the higher age of many RRSP participants with such income, many of whom already owned a home or did not need to use their RRSP savings to purchase one.

The relatively high HBP participation rate for taxfilers with low incomes resulted in an even higher payment delinquency rate for this group. While individuals with sufficient payments and incomes below \$20,000 represented just 14% of all who met their obligations, those with insufficient payments accounted for 30% of all who failed to do so.

At the other end of the spectrum, HBP repayers with incomes of \$60,000 or more were 19% of the total, but only 11% of the group who failed to make adequate payments.

Summary and conclusion

The Home Buyers' Plan, implemented in 1992, has generated a great deal of interest. Since then, 650,000 Canadians have removed \$6.2 billion from their RRSP savings for the purchase

or construction of a home. Data recently made available provide some insight into the extent to which these withdrawals may affect the future retirement income of those who participate in this program. Participants not only sacrifice the income that their RRSP withdrawals would have generated until retirement, they also forfeit the amount that should be repaid each year to their RRSP, if they do not make the payment.

In 1995, one-third of individuals obligated to make such instalment payments (more than 78,000) failed to do so and the shortfall (over \$46 million) was more than one-fifth of the amount due. Not only were these missed payments treated as regular RRSP withdrawals that year and taxed at the affected HBP participants' marginal tax rates, they could not be directed to RRSPs in future years, since defaulted payments cannot be caught up.

Because fewer women than men have RRSP savings, they also make fewer HBP withdrawals. However, since their average repayment in 1995 was higher than men's, it would

appear that their average withdrawals were also higher. The rate of default on repayments was the same for both sexes.

The use of RRSP savings for home purchase is more heavily concentrated among people in their thirties and forties and among those with incomes between \$30,000 and \$49,999. HBP participants with lower incomes have the highest default rates.

The HBP default rate evident in 1995 persisted in 1996. Whether it will continue remains to be seen. Instalments first became due in 1995, so these early results may not be an accurate gauge of future response to HBP requirements. Eventually, participants may be better prepared to meet these obligations if higher incomes and fewer other financial pressures prevail. □

■ Notes

- 1 For detailed information on the taxation of RRSP withdrawals and on the rules governing the Home Buyers' Plan, see Frenken (1996).
- 2 Even though the bulk of individuals with RRSP savings participate on an annual basis (Frenken, 1995), the total number with such savings must be well over 10 million.
- 3 One other consideration (often overlooked) is the burden such repayments add to future "shelter costs" of mortgage, property tax and other expenses. These payments may also hamper continued contributions to RRSPs. As well, the volatility of real estate values may serve to make a home purchase a less certain investment than in the past.
- 4 Starting with the 1997 tax year, RRSP holders must convert their savings to a pay-out product – either a registered retirement income fund or an annuity – by

the end of the year in which they reach age 69. Some of these older RRSP savers may already have owned a home and used the withdrawals to purchase a second or a recreational home, since the requirement that the HBP withdrawals be used only for first-time home purchase was not implemented until 1995.

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Employment Insurance in Canada: Policy changes

Zhengxi Lin

Employment Insurance or EI (formerly Unemployment Insurance or UI) was introduced in Canada in 1940. Over the course of nearly 60 years, the system has undergone numerous changes, the most significant being the *Unemployment Insurance Act, 1971*, which widely liberalized the system.

The system prior to 1971

After an amendment to the *British North America Act* that brought unemployment insurance, among other matters, under federal jurisdiction, Parliament passed Canada's first *Unemployment Insurance Act* on August 7, 1940. The Act's main objectives were to provide financial assistance to unemployed persons, to find suitable employment for Canadians, to move people out of areas of high unemployment, and to provide aid to the disadvantaged.

The 1940 Act made coverage compulsory except for certain industries, professional services, government services, casual employees, and persons with annual earnings over \$2,000. During the first year of operation the system covered approximately 2.5 million workers, or about 42% of the workforce.

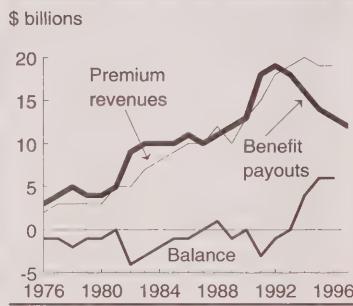
The Unemployment Insurance Commission administered the Act and the federal government paid for the administration of the program, plus 20% of the employee and employer contributions combined. Contributions into the UI fund commenced on July 1, 1941. The first date on which claimants could qualify for benefits was January 27, 1942.

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Recent trends

Prior to 1993, benefit payouts exceeded premium revenues, substantially in some cases, and the Employment Insurance fund was in the red every year (except for the business cycle peak of 1987 and 1988). For example, the gross deficit was around \$4 billion in 1982 and \$3 billion in 1991. The system turned around in 1993, when the books were nearly balanced, and surpluses have been the rule ever since. The gross surplus was over \$3.5 billion in 1994 and close to \$6 billion in both 1995 and 1996 (Chart A). This turnaround reflects both increased revenues and reduced expenditures.

Chart A
Since 1994, the EI account has been in surplus.



Source: Employment Insurance statistics

Increased revenues

Total premium revenues collected from employees and employers rose from about \$10 billion in 1989 to around \$19 billion per year since 1994, largely thanks to the recovery of the economy. At the same time, EI financing has changed significantly over the years.

This article has been adapted from a longer paper entitled "Employment Insurance in Canada: Recent trends and policy changes," which was published in the *Canadian Tax Journal*, April 1998 (Volume 46, no. 1). The policy

Prior to 1990, the cost of the program was shared by employees, employers and the federal government. In 1990, the federal government's financial responsibilities were eliminated as the fund became self-financing; that is, the entire cost of the system is now shared between employers and employees.

Reduced expenditures

As revenues have risen, benefit payouts have declined steadily, from \$19 billion in 1992 to \$13 billion in 1996. This is the result of the falling number of beneficiaries, coupled with benefit rate reductions. The number of beneficiaries peaked at 1.4 million in 1992, and has been falling ever since, sliding to 0.9 million by 1997. Similarly, the number of beneficiaries receiving regular benefits hit its 1.0 million peak in 1991 and declined steadily to 0.5 million by 1997. The ratio of regular beneficiaries with no earnings to unemployed peaked in 1989 at 74%. And it too has been declining rapidly since 1990, reaching 36% by 1997 (Chart B).

Chart B
Fewer unemployed are EI beneficiaries.



Source: Employment Insurance statistics and Labour Force Survey

changes noted are by no means intended to present a complete history; rather, they were selected by the author in the context of possible effects on recent trends.

In order to be eligible for benefits, claimants had to furnish proof that they were unemployed, available for work (unless engaged in approved training) and able to work, and that they had contributed into the fund for at least 180 days during a two-year period prior to the claim. Persons were disqualified from receiving benefits for up to 6 weeks if they had left their employment without just cause, had refused to accept suitable employment, or had been dismissed for misconduct. In addition, persons who were directly involved in labour disputes were disqualified from receiving benefits.

Main changes to the system in the 1940s included enacting provisions to assist persons discharged from the Armed Forces (1941); transferring the administration of the Act to the Department of Labour (1942); and raising the annual earnings ceiling for coverage to \$2,400 (1943). By the end of the 1940s, the system covered approximately 50% of the workforce, and the maximum weekly benefits had risen to \$18.30 for claimants with dependants and \$14.40 for those without dependants.

The system continued to evolve during the 1950s. The amendments of February 1950 provided supplementary or seasonal benefits to persons ineligible for regular benefits. In 1952, the waiting period was reduced to 5 days, and the supplementary benefits period extended. In August 1953, the Act was amended to provide for the continuation of benefit payments in case the claimant became ill after the claim had started.

A new act was passed on October 2, 1955 introducing a series of changes to benefit rates, contributions, duration of benefit payments, allowable earnings during the claim period, seasonal benefits, and coverage. In September 1956, regulations regarding repeat claimants were relaxed, and the eligibility requirement reduced from 30 to 24 weeks of insurable employment in the past year or since the last claim. By the end of the 1950s, maximum

weekly benefits had advanced to \$36.00 for claimants with dependants, and \$27.00 for those without dependants; maximum weekly insurable earnings had increased to \$69.00; maximum weekly contributions had risen to \$0.94; the coverage earnings ceiling had reached \$5,460; and the maximum benefit entitlement had increased to 52 weeks. In addition, coverage was extended to self-employed fishermen. To encourage claimants to seek employment, the regulations permitted earnings of up to 50% of weekly benefits without penalty.

The system remained relatively stable in the 1960s, during which no major legislative amendments were made. Following the release of the *Report of the Committee of Inquiry into the Unemployment Insurance Act* (the "Gill Report") in 1962, the government undertook some administrative changes. In April 1965, the duties and functions of the employment service became the responsibility of the Minister of Labour. Further integration of manpower policies and programs resulted in the creation of the Department of Manpower and Immigration. On October 1, 1966, the employment service was transferred to this new department. By the end of the decade, the system's coverage had expanded to about 68% of the workforce.

The system since 1971

Major institutional changes to the system were enacted by the *Unemployment Insurance Act* of June 27, 1971. One major objective was to provide "adequate" income support for all persons experiencing temporary earnings interruptions. The new legislation widely liberalized the earlier system. Among other things, it provided nearly universal coverage for paid employees, eased eligibility, and added a host of special benefits, such as sickness, maternity and retirement benefits. Since the 1971 reforms, the system has undergone a series of refinements. (See Appendix for a chronology of main legislation.)

Coverage requirements

In 1971, coverage became nearly universal. The only exclusions were the self-employed (except self-employed fishermen, who were covered under separate regulatory rules for income support during the off-season); persons aged 70 years or over (65 or over, as of January 1, 1976; then back to 70 or over, effective November 18, 1990); and persons who did not meet the minimum weekly earnings requirement (20% of the maximum weekly insurable earnings). This earnings requirement applied to each job separately; that is, earnings could not be summed across different jobs to meet this requirement.

Weekly hours of work were added to the minimum coverage requirement in 1979. The level was set at 20 hours a week or 20% of the weekly maximum insurable earnings for 1979 and 1980; 15 hours a week and 20% of the weekly maximum insurable earnings between 1981 and 1986; and 15 hours a week or 20% of the weekly maximum insurable earnings since 1987. Effective January 1, 1997, the minimum requirement was abolished and every hour of work became insurable.

Eligibility, entrance requirement and UI regions

The 1971 legislation called for a minimum of 8 weeks of insurable employment during the 52 weeks immediately preceding the claim (qualifying period) for regular benefits; 20 weeks for special benefits. On December 4, 1977, the 8-week minimum was replaced by the Variable Entrance Requirement (VER). Depending on the unemployment rate prevailing in the region of residence, the claimant was required to have 10 to 14 weeks of insurable employment during the qualifying period to become eligible for benefits. Effective July 1, 1979, new entrants and re-entrants to the labour market required 20 weeks of insurable employment during the qualifying period. Repeat claimants (those who had made a claim in the past 52 weeks)

in regions where the unemployment rate was below 11% needed up to 6 weeks of insurable employment in addition to the VER (Table 1).

**Table 1
Employment Insurance
Variable Entrance
Requirement**

	Minimum weeks of insurable employment		
	Bill C-27	Bill C-21	Bill C-17
Regional unemployment			
Under 6%	14	20	20
6% to 7%	13	19	19
7% to 8%	12	18	18
8% to 9%	11	17	17
9% to 10%	10	16	16
10% to 11%	...	15	15
11% to 12%	...	14	14
12% to 13%	...	13	13
13% to 14%	...	12	12
14% to 15%	...	11	...
15% and over	...	10	...

On February 11, 1990, the recurring legislation that permitted the VER failed to pass the Senate. The entrance requirement reverted to a uniform 14 weeks nation-wide. When Bill C-21 came into force on November 18, 1990, repeat claimants were no longer required to work up to 6 additional weeks. The VER became 10 to 20 weeks, depending on the regional unemployment rate. Effective July 7, 1994, Bill C-17 set the VER at 12 to 20 weeks, depending on the regional unemployment rate. As of January 1, 1997, hours of work replaced weeks of insurable employment as the measure of entitlement.

When the VER was first implemented in 1977, the regional unemployment rate was based on 16 UI economic regions (established under the UI Act of 1971). Bill C-27 (November 11, 1978) increased the number of UI regions to 48. Bill C-21 (November 18, 1990) further raised the number to 62.

Replacement (benefit) rate

The 1971 Act set the replacement rate at 75% of insurable earnings for claimants with dependants, and 66.67% for those without dependants. As of January 1, 1976, Bill C-69 reduced the former to 66.67%. Effective January 1, 1979, Bill C-14 further lowered the replacement rate to 60%. As of April 4, 1993, Bill C-113 reduced this rate for new claimants to 57%. And effective July 7, 1994, Bill C-17 raised the rate for claimants with low weekly earnings (less than half of the maximum insurable earnings) and with dependants to 60%, but lowered it to 55% for others. Finally, effective January 1, 1997, the base used to calculate the amount of benefit changed to average earnings over the 20 weeks preceding the claim.

Maximum benefit period and phases

In 1971, the maximum benefit period could not exceed 51 weeks (except for persons participating in approved training). Bill C-27 reduced this to 50 weeks as of September 11, 1977.

The 1971 legislation allowed for benefits to be paid out in five phases: the first provided 8 to 15 weeks of benefits; the second, 10 weeks; the third, up to 18 weeks for claimants with a strong labour force attachment; the fourth (National Extended Benefits), up to 8 weeks, depending on the national unemployment rate (evaluated once benefit weeks granted in phases one to three were exhausted); and the fifth (Regional Extended Benefits), up to 18 weeks, depending on the regional unemployment rate and the difference between that and the national unemployment rate (evaluated once benefit weeks granted in phases one to four were exhausted) (Table 2).

On September 11, 1977, a three-phased structure replaced the former one: the first phase provided up to 25

weeks of benefits – one week of benefits for each week of insurable employment; the second (Labour Force Extended Benefits), a maximum of 13 weeks, one week for each 2 weeks of insurable employment beyond 26 weeks; the third (Regional Extended Benefits), up to 32 weeks – 2 weeks of benefits for each 0.5 percentage point increment in the regional unemployment rate in excess of 4%.

On November 18, 1990, a single benefit schedule came into effect, based on weeks of insurable employment and on the regional unemployment rate. On April 3, 1994, a two-component system replaced that schedule: the work component – providing up to 20 weeks of benefits (one week of benefits for every 2 of work for the first 40 insured weeks) and up to 12 additional weeks of benefits (one for each additional week of work beyond 40); and the regional component – up to 26 weeks of benefits (2 for every percentage point by which the regional unemployment rate exceeded 4%). The maximum benefit entitlement remained at 50 weeks.

Disqualification and penalty

Under the *Unemployment Insurance Act, 1971*, claimants could be disqualified for a maximum 3 weeks of benefits for quitting without just cause, for being dismissed for misconduct, for refusing to accept suitable employment, for failing to attend a placement interview, or for refusing to follow instructions from personnel handling the claims. And these weeks of disqualification counted as weeks of benefit in calculating the maximum weeks of entitlement. Effective January 1, 1976, the penalty rose to a maximum 6 weeks; as of November 18, 1990, it moved to 7 to 12 weeks, and the replacement rate dropped to 50%. Then, effective April 4, 1993, those who quit without just cause or were fired because of misconduct, or who refused to accept suitable employment, became ineligible for benefits.

Table 2
Benefit period during different phases, 1971 to 1977

Insurable employment	Benefit eligibility
Phase 1	
3 to 15 weeks	8 weeks
16	9
17	10
18	11
19	12
20 and over	15
Phase 2	
8 and over	10
Phase 3	
20	2
21 to 22	3
22 to 23	4
2-week intervals	1 extra week of benefits for each 2 additional weeks of insurable employment
51 to 52	18
Phase 4	
National unemployment rate	Benefit eligibility
Under 4%	0 weeks
4% to 5%	4
5% and over	8
Phase 5	
Benefit period	Benefits cease if one of the conditions is satisfied:
1 to 6 weeks	<ul style="list-style-type: none"> ● Regional unemployment drops below 4% ● The difference between the regional and national unemployment rates drops to under 1 percentage point ● At the end of the 6th week, the difference between the regional and national unemployment rates drops to under 2 percentage points
7 to 12	<ul style="list-style-type: none"> ● Regional unemployment drops below 4% ● The difference between the regional and national unemployment rates drops to under 2 percentage points ● At the end of the 12th week, the difference between the regional and national unemployment rates drops to under 3 percentage points
13 to 18	<ul style="list-style-type: none"> ● Regional unemployment drops below 4% ● The difference between the regional and national unemployment rates drops to under 3 percentage points

Source: The Unemployment Insurance Act, 1971

Earnings, benefit claw-back and penalty for repeat users

As of 1971, beneficiaries were allowed to earn up to 25% of benefits without penalty. Beyond this limit, their benefits were subject to a dollar-for-dollar reduction. Effective January 1, 1979, a benefit claw-back was introduced to retrieve benefits from recipients with high earnings. Claimants with net income in excess of one-and-a-half times the annual maximum insurable earnings were required to pay back 30% of the benefits received.

As of July 1, 1996, the replacement rate for repeat users is now one percentage point lower for each 20 weeks of EI use in the past 5 years, up to the maximum of 5 percentage points. In addition, repeat claimants face a benefit claw-back of up to 100% if their earnings exceed the maximum insurable earnings. The extent of the claw-back depends on the number of weeks of EI use in the past 5 years. Benefits received before July 1, 1996 are not counted, nor are special benefits (maternity, parental, sickness) received at any time.

Financing and contributions

The 1971 Act required that the costs of the system be shared by employers, employees and the federal government. Employers – who have been assessed at 1.4 times the employee premium rate since 1972 – and their employees were deemed responsible for the following costs: administration, special benefits, and regular benefits attributable to a level of national unemployment rate of up to 4%. The federal government assumed responsibility for costs relating to benefits paid to self-employed fishermen, payments to persons who had been granted extensions after training, benefits received by claimants in phases four and five, and benefits associated with the first three phases if the national unemployment rate exceeded 4%.

Effective January 1, 1979, Bill C-14 stipulated that the cost of the Labour Force Extended Benefits be shared among employers, employees and the federal government. The cost of operating the National Employment Service was shifted to employers and employees on April 1, 1980. Later that year (July 1), employers and employees also became responsible for costs relating to all benefits paid during the initial and Labour Force Extended Benefits periods. Finally, on November 18, 1990, the federal government's share of costs was eliminated and the UI fund became self-financing. The entire cost of the system is now shared by employers and employees. □

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Appendix

A chronology of major Employment (Unemployment) Insurance legislation since 1971

Legislation	Effective date	Key parameters
UI Act	June 27, 1971	<ul style="list-style-type: none"> ● Generously liberalized the pre-1971 system: <ul style="list-style-type: none"> ● Provided nearly universal coverage (commencing February 2, 1972) ● Eased eligibility ● Added a series of special benefits – sickness, maternity and retirement
Bill C-69	January 1, 1976	<ul style="list-style-type: none"> ● Disqualification increased from 3 to 6 weeks for those who quit without just cause, were fired because of misconduct, refused to accept suitable employment, failed to attend a placement interview, or refused to follow instructions from personnel handling their claims ● Maximum age for coverage reduced from 70 to 65 ● Replacement rate reduced from 75% to 66.67% for claimants with dependants
Bill C-27	September 11, 1977	<ul style="list-style-type: none"> ● Variable Entrance Requirements (VERs) established (effective December 4, 1977), based on 16 UI regions ● Three-phased benefit structure replaced former five-phased benefit structure ● Maximum benefit period reduced to 50 weeks ● 48 new UI regions replaced former 16 UI regions (effective November 11, 1978)
Bill C-14	January 1, 1979	<ul style="list-style-type: none"> ● Entrance requirement for new entrants and re-entrants to the labour market set at 20 weeks (effective July 1, 1979) ● Entrance requirement for repeat claimants set at VER, plus up to 6 additional weeks in regions with an unemployment rate under 11% ● Replacement rate reduced to 60% ● Benefit claw-back introduced to recover benefits paid to high income recipients
Bill C-156	January 1, 1984	<ul style="list-style-type: none"> ● Seasonal fishermen's benefits modified ● Maternity benefits modified ● Adoption benefits introduced
VER	February 11, 1990	<ul style="list-style-type: none"> ● Failed to pass the Senate; entrance requirements reverted to a uniform 14 weeks nation-wide
Bill C-21	November 18, 1990	<ul style="list-style-type: none"> ● Repeat claimants no longer required 6 additional weeks ● Retirement benefits eliminated; workers 65 and over covered again ● Penalty increased from 6, to 7 to 12 weeks for quitting without just cause, for being dismissed for misconduct, or for refusing to accept suitable employment; and replacement rate dropped to 50% for these claimants ● VERs raised from 10 to 14 weeks, to 10 to 20 weeks ● Single benefit schedule replaced former three-phased structure ● Number of UI regions revised to 62
Bill C-113	April 4, 1993	<ul style="list-style-type: none"> ● Those who quit without just cause, were fired for misconduct, or refused to accept suitable employment became ineligible for benefits ● Replacement rate lowered to 57% from 60%
Bill C-17	July 7, 1994	<ul style="list-style-type: none"> ● VERs raised to 12 to 20 weeks ● Entitlement duration changed to work component and regional component ● Replacement rate raised to 60% for claimants with low earnings and dependants; lowered to 55% for others
Bill C-12	July 1, 1996	<ul style="list-style-type: none"> ● System renamed to Employment Insurance (EI) ● Hours/earnings coverage requirement abolished; every hour of work insurable, starting in January, 1997 ● Entrance requirement and benefit entitlement based on hours of work ● Average earnings over the last 20 weeks used to calculate amount of benefits ● Replacement rate for repeat claimants lowered by one percentage point for each 20 weeks of use in the past 5 years, up to a maximum 5 percentage points ● Repeat claimants face a benefit claw-back of up to 100%, depending on earnings and weeks of benefits in the last 5 years ● Weekly maximum insurable earnings revised to \$750

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What's new?

■ UPCOMING RELEASES

■ Survey of Consumer Finances looks at after-tax income

Income After Tax, Distributions by Size in Canada, 1996

How do transfer payments and income taxes affect the income of lower, middle and upper income families? Over time, have income taxes and transfer payments narrowed or widened the gap between lower and upper income families? *Income After Tax, Distributions by Size in Canada, 1996* (Catalogue no. 13-210-XPB) presents information that can address these questions.

This report includes detailed tables presenting income after tax (averages, medians and distributions), transfer payments, and income tax paid for families and unattached individuals, by various demographic and labour characteristics. Historical data are also included, illustrating the net effect of cash transfers and income tax on family incomes over time. These tables present averages for incomes before transfers, transfer payments, total income, income tax, and income after tax for various family types (elderly families, married couples, two-parent families, lone-parent families). Other tables show the percentages of income received in transfers and paid as income tax. Finally, inequality measures such as quintile statistics and Gini coefficients are presented, allowing analysts to determine whether income inequality has been decreasing or growing.

To order this publication, contact Client Services, Income Statistics Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; e-mail: income@statcan.ca. □

■ Family Expenditure Survey (FAMEX)

In 1996, households spent an average of \$49,100 on everything from taxes to travel, an 8% increase over 1992. Households spent 17 cents of every dollar in their 1996 budgets on shelter costs, second only to personal taxes, which ate up almost 22 cents of every dollar. Twelve cents went to transportation costs, and another 12 cents to food. The remaining 37 cents was spent on a variety of items such as recreation, personal insurance and pension contributions, household operation, clothing, and gifts and contributions to charity.

For further information concerning data from *Family Expenditure in Canada, 1996* (Catalogue no. 62-555-XPB), contact Client Services, Income Statistics Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; e-mail: expenditures@statcan.ca. □

■ JUST RELEASED

■ Work Absence Rates, 1980 to 1997

Statistics Canada recently released a publication on work absences for personal reasons. Absence rates vary considerably among groups of workers. Factors such as family circumstances, age, industry, occupation, work schedule and leave entitlements all play a role. This publication provides tables on work absence rates for men and women by age, education, and presence of children; by detailed industry and occupation groups; by public versus private sector; by union coverage, workplace size, job tenure and job permanency; by province, region or census metropolitan area; and by job benefits (paid vacation, sick leave entitlement or flexitime work option).

The report, which draws on data from the redesigned Labour Force Survey, covers full-time employees in 1997 and excludes maternity leave. Absence rates for the 1980-to-1997 period, including maternity leave, are provided for comparison. Some data from the 1995 Survey of Work Arrangements are also included.

For further information on *Work Absence Rates, 1980 to 1997* (Catalogue no. 71-535-MPB no. 9, \$50) contact Ernest B. Akyeampong, Labour and Household Surveys Analysis Division at (613) 951-4624; e-mail: akyearn@statcan.ca or Jeannine Usalcas at (613) 951-4720; e-mail: usaljea@statcan.ca. □

■ New workplace survey

The Longitudinal Workplace and Employee Survey (WES) will be among the first large-scale, national efforts to survey both establishments and their employees. This will make it possible to study the experiences of workers in relation to the practices of their employers, and vice-versa.

This report is based on the 1996 pilot WES, which was a small-scale test run. The data are not representative of the entire Canadian economy and

should be considered preliminary. Nonetheless, the results do provide important data on a number of issues about which very little is currently known. Topics include the type of business strategies used by firms, training opportunities, technology adoption, and labour turnover. The first wave of the longitudinal survey will be in the field in early 1999.

For more information on *The Evolving Workplace: Findings From the Pilot Workplace and Employee Survey* (Catalogue no. 71-583-XPE, \$20), contact Garnett Picot, Business and Labour Market Analysis Division at (613) 951-8214; e-mail: picogar@statcan.ca.



■ 1996 Census of Canada

Statistics Canada has released 1996 Census data showing trends in the Canadian workforce during the past five years, the 8th of 11 announcements that are painting a new statistical portrait of the nation.

This report contains information on the labour market activities of individuals aged 15 and over, including data by industry, occupation and class of worker (self-employed or employee). While this report presents data only for national, provincial or territorial, and census metropolitan area levels, the census also provides information for small communities.

Also examined are the characteristics of those who work at home and the various modes of transportation people use to get to work. As well, it contains data for all Canadians aged 15 and over on the amount of time spent on unpaid housework or home maintenance, on child care, and on unpaid care or assistance to seniors. The following are highlights:

- In 1996, more women worked as retail sales clerks than in any other occupation. Five years earlier, the most common job for women had been secretary. Among men, truck drivers moved into the number one position, pushing retail sales clerks into second place.
- Excluding people who lived and worked on a farm, about 6% of the employed reported that they usually worked at home in 1996. A majority were women and more than half were self-employed.
- Only 10% of the working population reported that they used some form of public transit in 1996 to get to work. Nearly three-quarters of all workers drove to work.

For further information on the new releases, contact your nearest Regional Reference Centre, or e-mail infostats@statcan.ca.



■ *Survey of Consumer Finances releases low income data*

Low income data for 1996 based on an alternative measure to the traditional low income cut-offs (LICOs) are now available in *Low Income Measures, 1996* (Catalogue no. 13-582-XPB, \$30).

Using low income measures (LIMs), this report presents rates, estimated numbers and distributions of persons and families with low incomes. LIMs are set at one-half of median family income, adjusted for families of varying sizes.

Estimates based on the traditional LICOs were released in December 1997 in *Income Distributions by Size in Canada, 1996* (Catalogue no. 13-207-XPB, \$46) and in *Low Income Persons, 1980 to 1996* (Catalogue no. 13-569-XPB, \$32).

For further information, or to order the publication, contact Client Services, Income Statistics Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; e-mail: income@statcan.ca. Or call your nearest Regional Reference Centre.



■ Article from Canadian Economic Observer

Differences in earnings inequality by province, 1982-94

Accumulated research provides considerable information about earnings inequality in Canada in terms of overall level, patterns by various sub-groups and changes over time. Until now, however, one area has remained virtually unexamined: earnings inequality at the provincial level.

Using the recently available Longitudinal Administrative Databank, this article examines earnings inequality at the provincial level from 1982 to 1994, a period generally characterized by rising inequality in earnings for most age groups of men and women.

Entrenched in the Canadian psyche is the notion of "have" and "have not" provinces. The findings of this paper suggest extending this categorization to another important dimension: the "more inequality" and the "less inequality" provinces. Significant inter-provincial differences in earnings inequality have endured over the past decade: inequality has been almost uniformly greater in the Atlantic provinces than elsewhere, consistently lower in Manitoba, also below average in Ontario, Quebec and Saskatchewan, and moderately above average in Alberta and British Columbia.

For further information about this article (which appeared in the February 1998 issue of *Canadian Economic Observer* [Catalogue no. 11-010-XPB]), contact Ross Finnie at (613) 951-3962; e-mail: ref@qsilver.queensu.ca. □

■ ***Closing the gap: Women's advancement in corporate and professional Canada***

Women are making great strides in Canadian business and the professions: 43% of all managers and administrators are now women, up from 29% in 1982. Women also make up a growing share of professionals, including accountants, lawyers and management consultants. Yet, while more women than ever are becoming corporate leaders and senior partners in professional service firms, they remain a small part of the total.

This is the first systematic study in Canada to address and document these issues from the perspectives of both chief executives and senior women themselves. In the spring of 1997, The Conference Board of Canada and the American research and advisory organization Catalyst, with the sponsorship of a consortium of leading Canadian corporations and professional firms, undertook a study of the perceptions and experiences of chief executives and senior women in top Canadian corporations and professional service firms. A 1996 study by Catalyst of Fortune 1000 companies in the United States, *Women in Corporate Leadership: Progress and Prospects*, serves as a point of comparison.

This study reveals that both women's own career strategies and their employers' policies and practices have been critical to their rise to senior levels. These findings provide a practical guide for women seeking to attain senior positions, as well as for organizations that recognize the importance of gender balance at senior levels.

The paper argues that corporations and professional firms must strive to ensure cultures that support diversity, flexibility and innovation, with success for both employees and the organization as the goal. In practical terms, this means taking a hard look at lingering stereotypes and misperceptions and putting in place policies and programs that enable the organization to benefit from its entire talent base.

For further information, contact The Conference Board of Canada at (613) 526-3280; fax (613) 526-4857; Internet: <http://www.conferenceboard.ca>. □

■ ***Analysis of results from the 1995 School Leavers Follow-up Survey***

For many young people, securing a job during the 1990s has not been easy – the nature and pace of technological, economic and social change have contributed to the challenges of getting established.

The 1991 School Leavers Survey interviewed youths aged 18 to 20 to provide useful information about school leaving. Four years later, the 1995 School Leavers Follow-up Survey re-interviewed the same people, who by then were aged 22 to 24. Used together, these sources allow researchers to assess the progress of not only school leavers, but all young people in this age group. (Both surveys were sponsored by Human Resources Development Canada.)

High School May Not Be Enough (Catalogue no. 81-585-XPE) provides the first in-depth examination of results from the 1995 School Leavers Follow-up Survey. The report includes a contextual overview of the youth labour market and a general discussion of transitions between school and work. Other chapters address a range of topics relating to young people's experiences beyond high school: their education and training, their involvement in the labour market, and the kinds of skills they were using. The report also explores the potential importance of early childhood experiences on eventual outcomes.

For further information on this survey, contact Jeffrey Frank, Centre for Education Statistics at (613) 951-1504; e-mail: franjef@statcan.ca. Copies of this publication can be obtained from Public Enquiries Centre, Communications Branch, Human Resources Development Canada, Hull, Quebec K1A 0J9; fax (819) 953-7260; Catalogue no. SP-105-05-98E; Internet: http://www.hrdc-drhc.gc.ca/hrdc/corp-stratpol/arb-site/research/rsctoc_e.html. □

■ ***Analytical Studies Branch research papers series***

The Dimensions of Wage Inequality Among Aboriginal Peoples

R. Bernier

Research Paper Series no. 109

Over the past decade, interest in the issue of wage inequality has grown. This is attributable to the widening of the gap between the highest and lowest paid workers in the United States, Canada and several other OECD countries during the 1980s, a phenomenon

that has placed added pressure on government transfer systems at a time of budget cutbacks and weak economic growth. In Canada, most research in recent years has involved a study of Canadian wage dispersion.

This paper examines wage dispersion between Canadian workers as a whole and workers of Aboriginal origin. It documents differences in wage dispersion for the four main Aboriginal groups and finds that North American Indians living on reserves have earnings substantially lower than those of the other Aboriginal groups.

Corporate Financial Leverage: A Canada-U.S. Comparison, 1961-1996

M. Zyblock

Research Paper Series no. 111

Recent studies have shown that companies with relatively high debt-to-asset (leverage) ratios exhibit more variability in investment and employment patterns. Other studies argue that high aggregate corporate leverage is associated with macroeconomic instability. This paper tracks the evolution of aggregate corporate leverage trends in Canada and the U.S. from 1961 to 1996. Leverage has increased nearly 50% in both countries, the majority attributable to a greater use of short-term debt instruments. Although the size of the increase is similar in both countries, the period of greatest growth is country-specific.

Most of the increase in corporate leverage in Canada occurred between 1974 and 1983, a period associated with low real interest rates and rapid capital expansion in the western provinces. Most of the growth in American corporate leverage occurred between 1982 and 1990. Over this period, U.S. companies were in the process of massive capital restructuring using borrowed funds. This period was also associated with an increase in the number and value of U.S. leveraged buy-outs that helped push financial leverage even higher.

To order studies in the Research Paper Series, contact your nearest Statistics Canada Regional Reference Centre, or write to Publications Review Committee, Analytical Studies Branch, 24th floor, R.H. Coats Building, Ottawa, Ontario K1A 0T6. Or phone (613) 951-1804; fax (613) 951-5403. □

■ UPCOMING CONFERENCES

■ *International Conference on Self-employment*

September 24-26, 1998, Burlington, Ontario

In a number of OECD countries, self-employment has been rising dramatically. Why is this occurring? Is this the harbinger of an emerging, more entrepreneurial form of labour market organization, or just a temporary response to the scarcity of full-time jobs? What explains international differences in the level and growth rate of self-employment? What has been happening to the relative incomes and job quality of self-employed workers? How do government policies aimed at the self-employed differ across countries and how have these policies affected entry rates into self-employment, especially among the unemployed? These topics, among others, will be addressed at this conference. □

■ *Labour Market Institutions and Outcomes: A Cross-national Study*

September 27-28, 1998, Burlington, Ontario

The Canadian International Labour Network (CILN) is a network of over 50 researchers in eight countries devoted to the comparative study of labour markets. CILN's three main research themes are the effects of labour market institutions on wages and job quality, unemployment, and the allocation of resources within families. A major component of CILN's mandate is to foster the analysis of these issues using detailed administrative and/or survey-based microdata from several countries at a time.

CILN's second major conference will include sessions on all three themes with presenters from a number of nations and disciplines. Special features of the conference will include sessions on "Losing Work, Moving On: International Perspectives on Worker Displacement," "Intergenerational Mobility," "Prospects for the Welfare State," "European Labour Markets and the Rigidity Debate," and "Child Outcomes."

Further information on these conferences is available on the Internet: <http://labour.ciln.mcmaster.ca>. Or e-mail ciln@mcmaster.ca. Or fax (905) 521-8232. □

Key labour and income facts

The following is a guide to data sources for labour market, business, income and earnings, pension, education and other household topics. Each quarter, this section presents charts and analysis featuring one or more of these sources. For general inquiries, please contact Joanne Bourdeau at (613) 951-4722; e-mail: bourjoa@statcan.ca or Marie-Paule Robert at (613) 951-4628; e-mail: robemar@statcan.ca.

Administrative data

Small area and administrative data
Frequency: Annual
Contact: Customer Services
(613) 951-9720

Business surveys

Annual Survey of Manufactures
Frequency: Annual
Contact: Richard Vincent
(613) 951-4070

Business Conditions Survey of Manufacturing Industries
Frequency: Quarterly
Contact: Claude Robillard
(613) 951-3507

Census

Census labour force characteristics
Frequency: Quinquennial
Contact: Michel Côté
(613) 951-6896

Census income statistics
Frequency: Quinquennial
Contact: Abdul Rashid
(613) 951-6897

Employment and income surveys

Labour Force Survey
Frequency: Monthly
Contact: Nathalie Caron
(613) 951-4168

Survey of Employment, Payrolls and Hours
Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Help-wanted Index

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Employment Insurance Statistics Program

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Major wage settlements

Bureau of Labour Information
(Human Resources
Development Canada)
Frequency: Quarterly
Contact: (819) 997-3117

Labour income

Frequency: Quarterly
Contact: Anna MacDonald
(613) 951-3784

Survey of Labour and Income Dynamics

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Survey of Consumer Finances

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Household Facilities and Equipment Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Family Expenditure Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

General Social Survey

Education, work and retirement
Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Social and community support

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Time use

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Pension surveys

Pension Plans in Canada Survey
Frequency: Annual
Contact: Thomas Dufour
(613) 951-2088

Quarterly Survey of Trusteed Pension Funds

Frequency: Quarterly
Contact: Thomas Dufour
(613) 951-2088

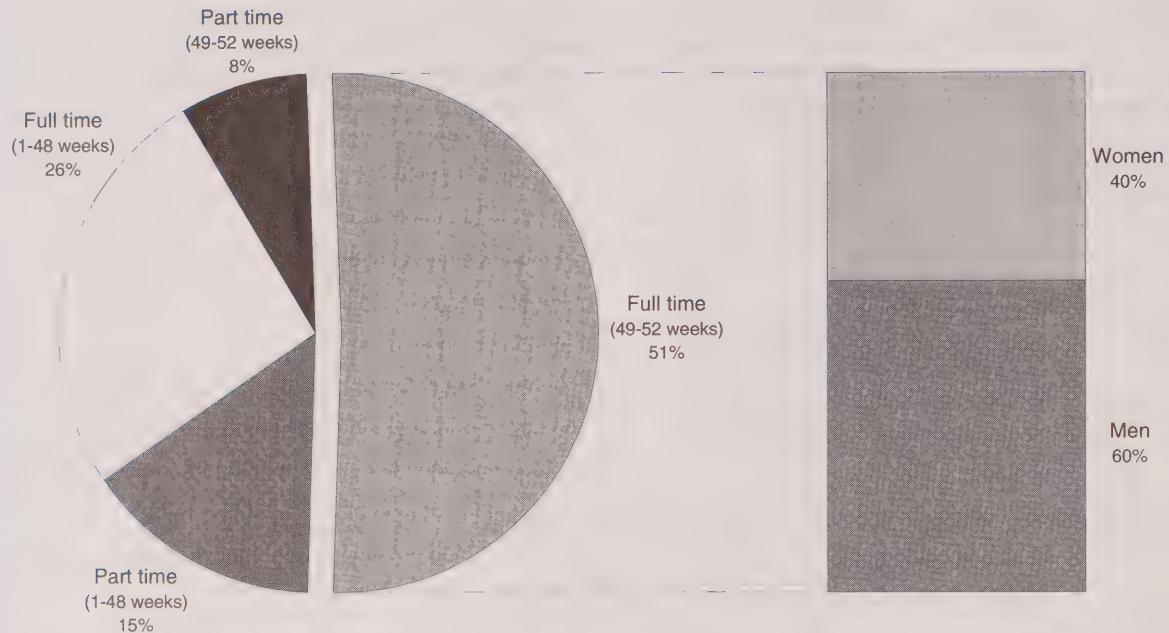
Special surveys

Survey of Work Arrangements
Frequency: Occasional
Contact: Ernest B. Akyeampong
(613) 951-4624

Adult Education and Training Survey
Frequency: Occasional
Contact: Steve Arrowsmith
(613) 951-0566

Graduate Surveys (Postsecondary)
Frequency: Occasional
Contact: Bill Magnus
(613) 951-4577

Distribution of Canadians working full and part year, full and part time, in 1995



Source: Census of Canada, 1996

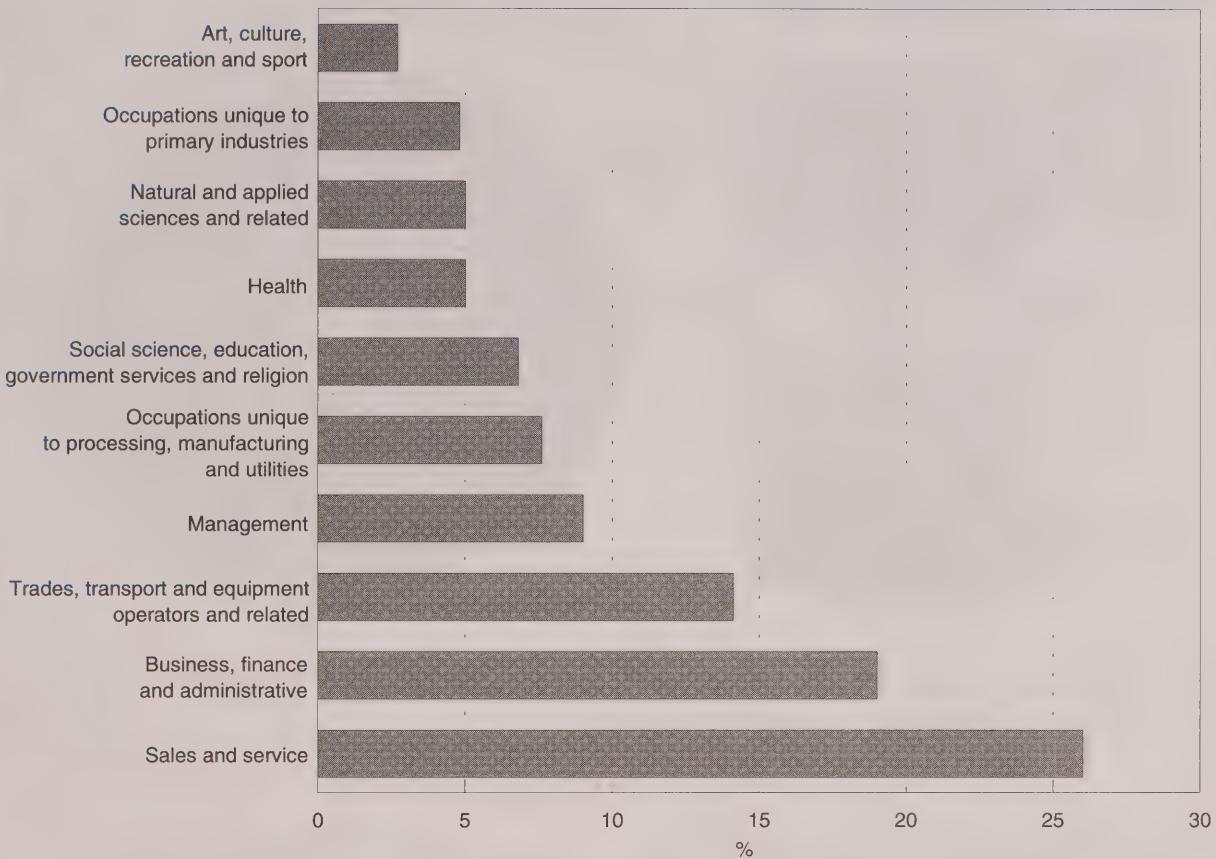
Just over half work full year full time

In 1995, about 9 million people worked all year. About 7.7 million (51% of those who worked at any time in 1995) worked full year full time, down 3% from 1990, while 1.2 million (8% of those who worked) worked full year part time, an increase of almost 20% since 1990. The remaining 41% reported working less than 49 weeks, either full or part time during the year.

Of the 7.7 million people working full year full time, about 4.6 million (60%) were men, while 3.1 million (40%) were women.

Women were more likely than men to work full year part time. Of 1.2 million full-year part-time workers, 861,000 (71%) were women, and only 344,000 (29%) were men.

Distribution of labour force by occupation



Source: Census of Canada, 1996

Sales and service largest occupational category

Some 3.7 million persons worked in sales and service in 1996, representing 26% of the labour force. One in three women and one in five men had a job in sales and service. This category increased by 248,000 between 1991 and 1996. This was the largest absolute increase of the 10 categories and the second fastest growth rate.

Some 2.7 million Canadians (or 19% of the labour force) worked in business, finance and administrative occupations, a slight decline from 1991. Men's 8% increase was offset by women's 3% decline (which was largely the result of a 100,000 drop in the number of secretaries).

The smallest of the 10 categories is art, culture, recreation and sport. Only 386,000 persons worked in these occupations in 1996. But this category grew the fastest: 15% over five years.

Service-producing industries

Percentage share of service-producing industries

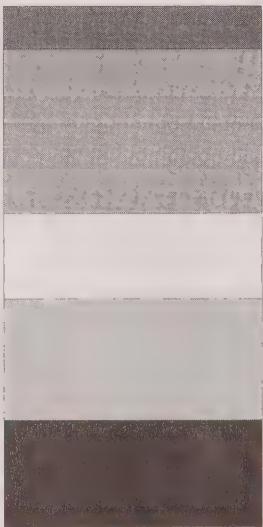
Communication,
transportation
and storage
6%

Health, education
and government
23%

Business; finance,
insurance and
real estate
12%

Trade
17%

Other services*
15%

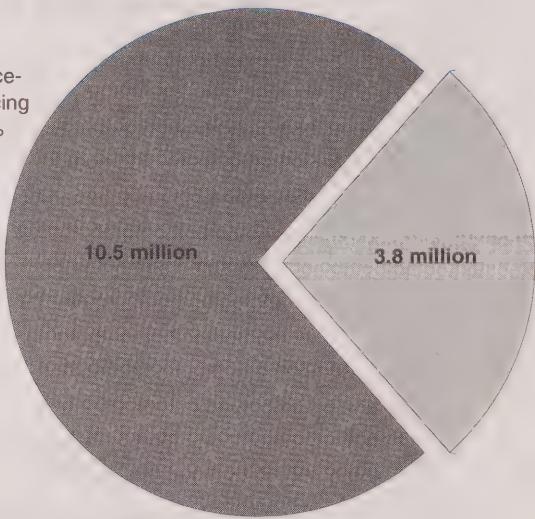


Service-
producing
73%

10.5 million

3.8 million

Goods-
producing
27%



Source: Census of Canada, 1996

* Accommodation, food and beverage services, and other services.

Three-quarters work in service sector...

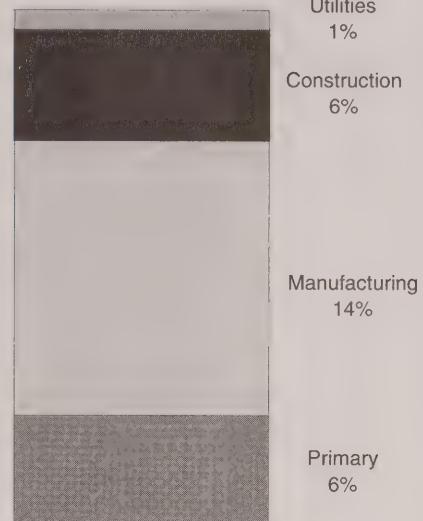
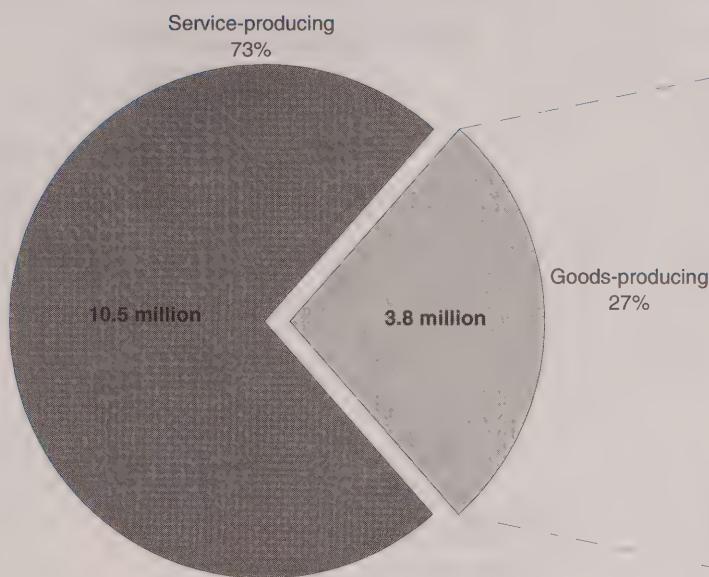
In the first half of the 1990s, Canada's labour force was characterized by a large and growing service sector and a declining goods sector.

During the 1991-to-1996 period, the labour force in the service sector grew 3% to 10.5 million people. By 1996, almost 3 out of 4 workers were in services.

Retail trade was the largest service-producing industry in 1996, with almost 1.8 million workers, or about 12% of the labour force. The health industry accounted for almost 10% of the labour force, with 1.4 million workers in 1996.

Goods-producing industries

Percentage share of goods-producing industries



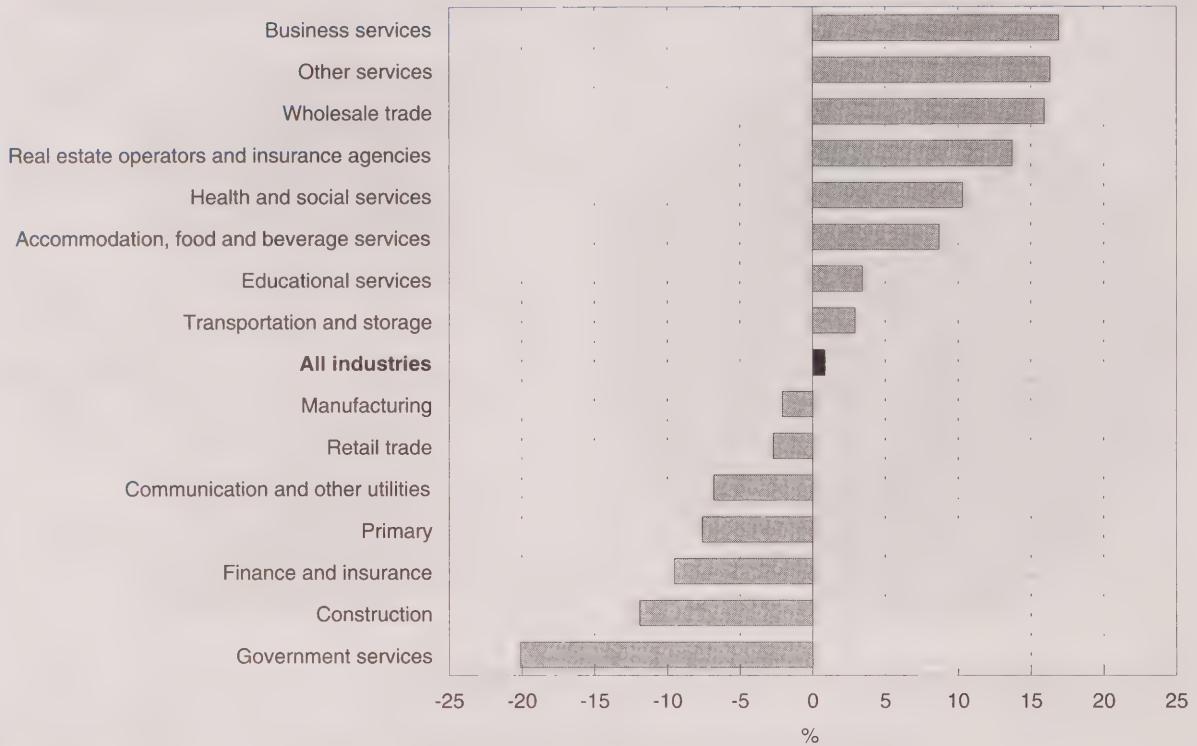
Source: Census of Canada, 1996

...one-quarter work in goods sector

Between 1991 and 1996, the goods sector declined by 6%, to 3.8 million workers. However, despite a 2% decline between 1991 and 1996, more Canadians (2 million or 14% of the labour force) continued to work in manufacturing in 1996 than in any other industry.

Primary industries (agriculture, fishing and trapping, logging and forestry, and mining) and construction each made up just 6% of the labour force in 1996.

Change in employment by industry, 1991-1996



Source: Census of Canada, 1996

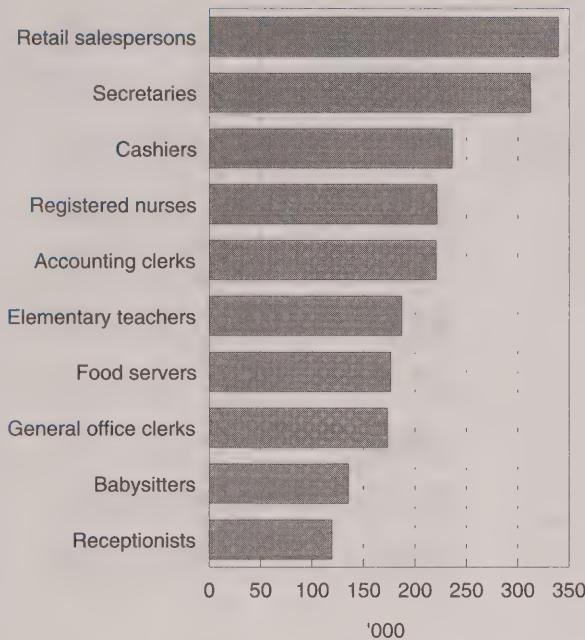
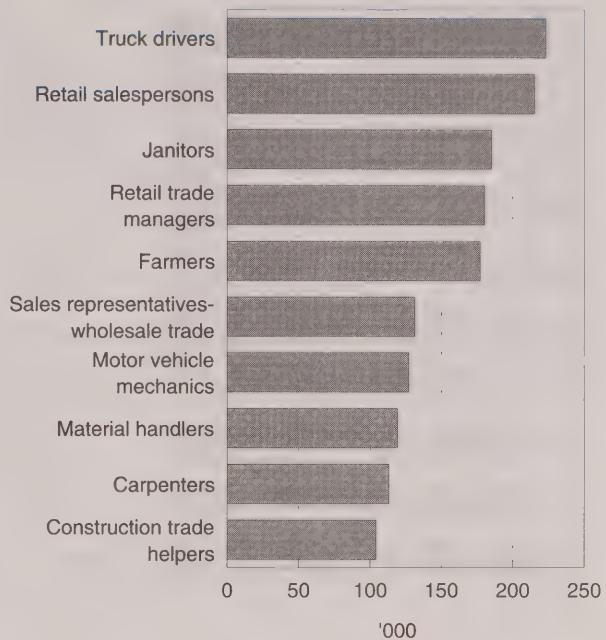
Business services increased, government services declined

The decline among goods-producing industries was widespread: manufacturing fell by 2% between 1991 and 1996; primary industries, by 8% and construction, by 12%.

But not all service-producing industries grew over the period. Both retail trade and finance and insurance indus-

tries declined, but the most striking change was in government services – down 20%.

Business services, which increased by 17% or 135,000 workers, grew faster than any other industry. Much of this growth is attributable to part-time work and self-employment. Other services and wholesale trade also expanded by more than 15%.

Ten most common jobs for women**Ten most common jobs for men**

Source: Census of Canada, 1996

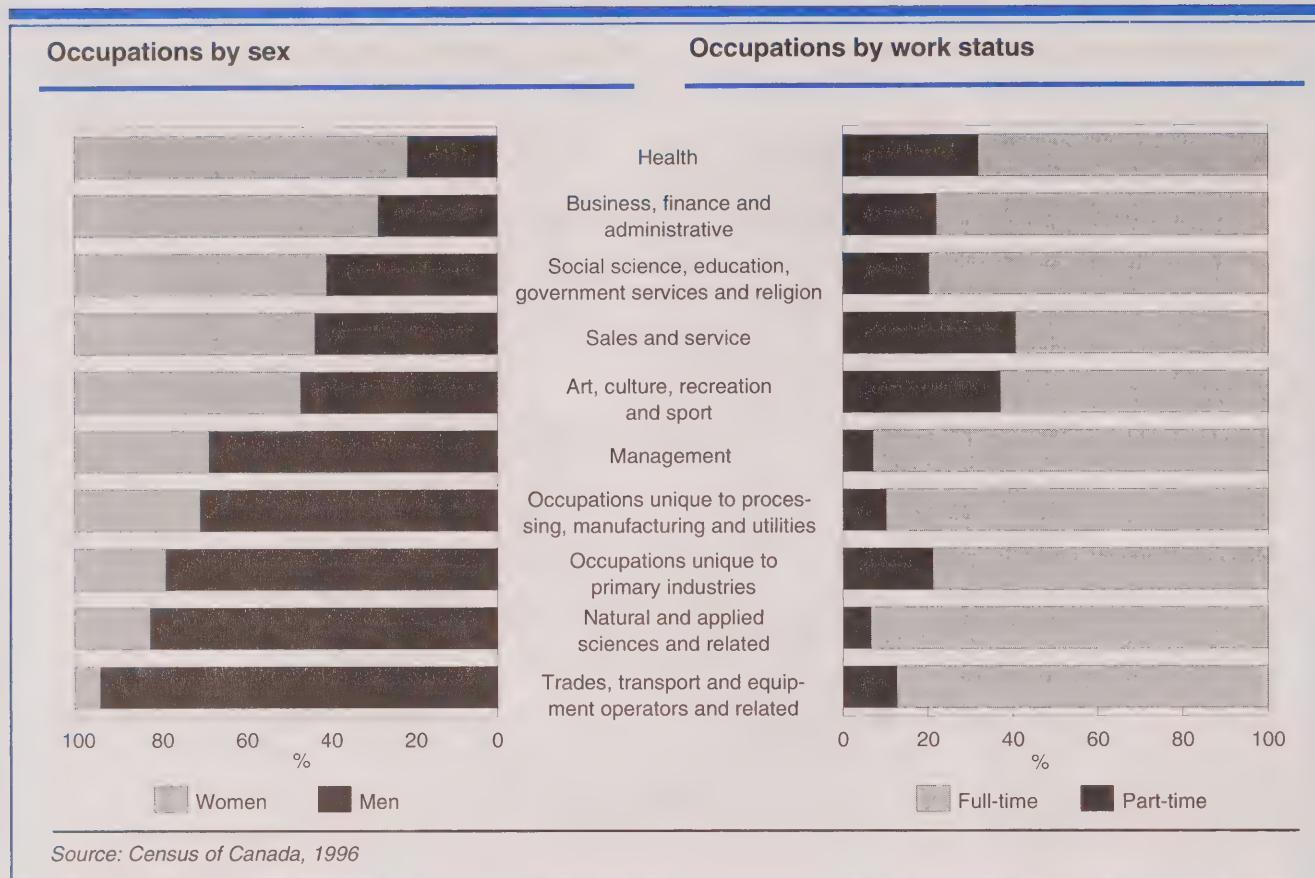
Retail salespersons number over half a million

In 1996, women were most likely to be retail salespersons (339,000), followed by secretaries (312,000). The babysitters and nannies category, number 9 on the list in 1996, was not among the top 10 in 1991.

The top 10 occupations accounted for 32% of all jobs held by women in 1996, down from 34% in 1991.

For men, the most common occupation in 1996 was truck driver (223,000), followed by retail salesperson (215,000). Truck drivers were third in 1991; salespersons were first.

The top 10 occupations accounted for 20% of all jobs held by men in 1996, down slightly from 1991.



Women dominate health occupations

Women, who represent 46% of the labour force, form the majority in 5 of the 10 occupation categories.

In health, women outnumber men four to one. In business, finance and administrative occupations, 7 out of 10 workers are women. However, women constitute only 6% of trades, transport and equipment operators.

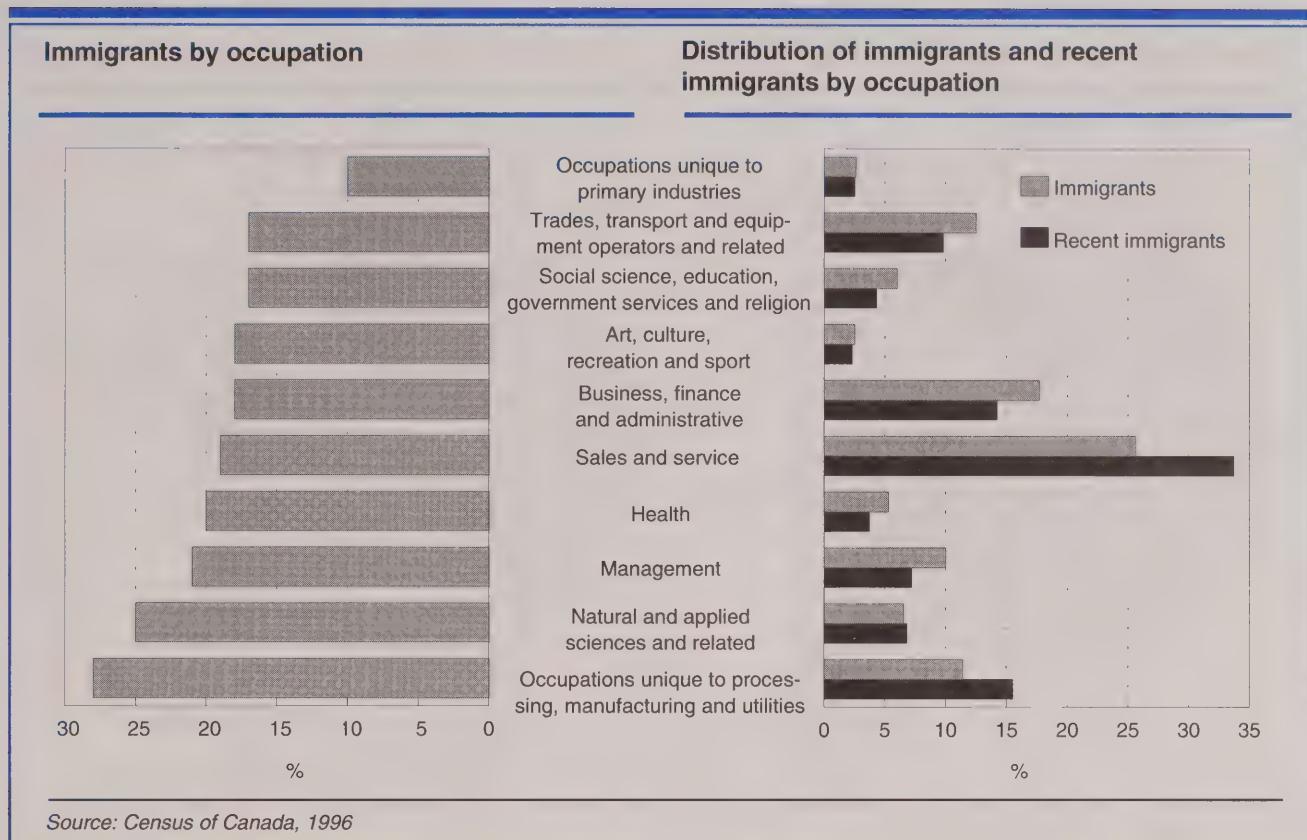
Women dominate health occupations mainly because of the number who are registered nurses, nursing assistants and nurses aides. And more women are becoming doctors. In 1996, 30% of general practitioners and specialists were women, up from 26% in 1991.

Women's larger share of business, finance and administrative jobs probably reflects their overwhelming presence in occupations such as secretaries and general office clerks.

Teaching occupations show an unusual pattern. Among elementary and kindergarten teachers, women outnumber men by over four to one. But they constitute only a slim majority of secondary teachers and only a third of university teachers. However, the number of women employed as university teachers grew by 39% between 1991 and 1996, compared with only 8% for men.

Part-time work was most prevalent in the largest occupational category, sales and service: 41% reported working part time in 1996. Some of these jobs include food service counter attendants, service station attendants and grocery clerks. The average age of these workers was 34.9 years, among the lowest for any category. The average age of the experienced labour force was 38.2 years in 1996.

Part-time work was also important in art, culture, recreation and sport occupations. More than two-thirds of musicians and singers worked part time, as did 85% of sports officials and referees.



Immigrants make up almost one-fifth of the labour force

In 1996, 19% of the labour force were immigrants, even though only 17% of the population were recorded as such. Recent immigrants¹ made up 3% of the labour force in 1996.

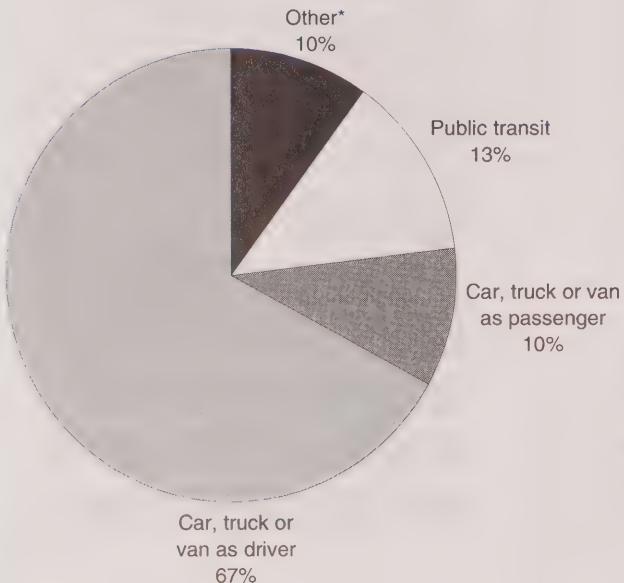
Occupations in processing and manufacturing had the highest proportion of immigrants: 28%. And some 25% of workers in the natural and applied sciences were immigrants. Specifically, 46% of aerospace engineers, 39% of chemists and 38% of computer engineers were immigrants.

The types of jobs held by recent immigrants differ from those of immigrants as a whole. For example, one-third of recent immigrants were in sales and service jobs, compared with a quarter of all immigrants. Over 15% had jobs in processing and manufacturing, compared with 11% of all immigrants. Finally, nearly 7% of recent immigrants had jobs in natural and applied sciences, compared with 6% of all immigrants and 5% of the labour force as a whole.

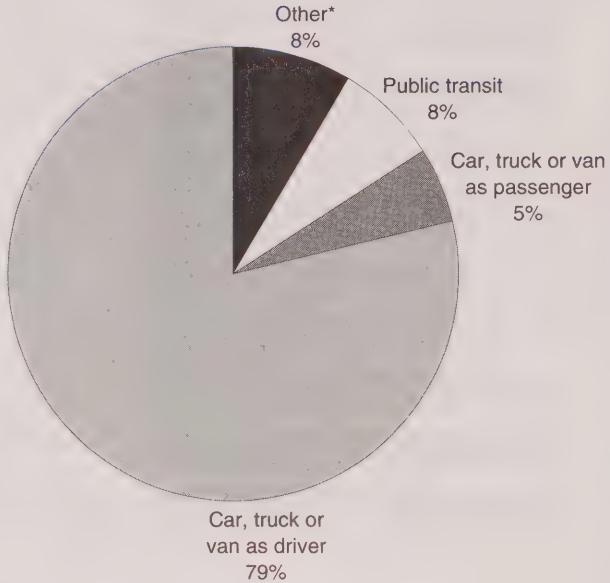
¹ These are people who have immigrated since the last census.

Usual mode of transportation to work

Women



Men



Source: Census of Canada, 1996

* Walking, bicycle, motorcycle, taxicab, and other.

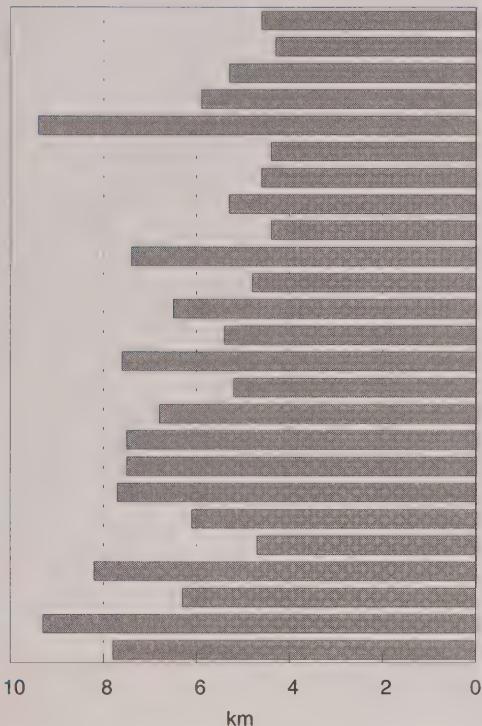
Most drive to work

The vast majority of Canadians settled in behind the wheel to get to work in 1996. About 8.9 million people, or 73% of the working population, drove to work in a car, truck or van. Another 7%, or almost 900,000 people, travelled as passengers.

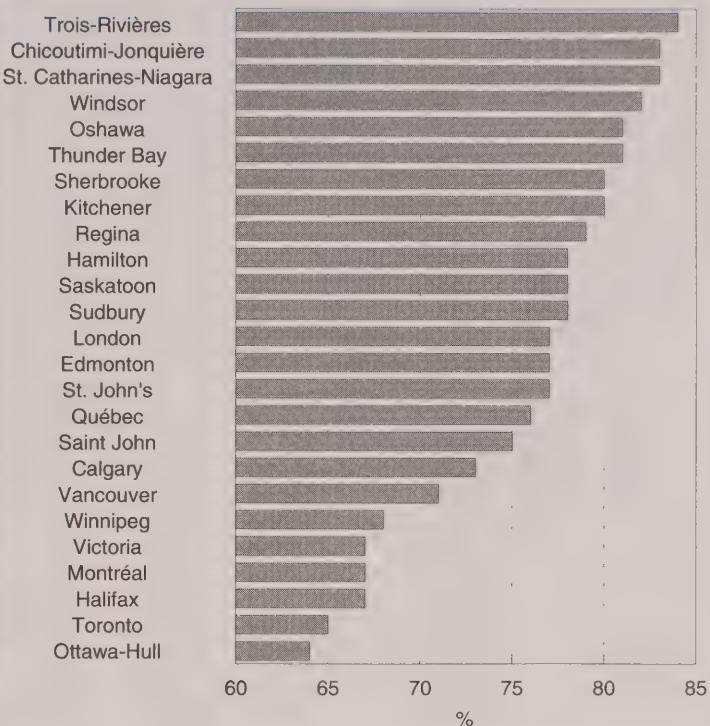
Just 10% of the working population, or about 1.2 million people, reported using some form of public transit in 1996 to get to work. A further 7% walked to work, while 1% used a bicycle.

Men were more likely than women to drive to work, while women tended to travel as passengers, to take public transit or to walk. About 79% of working men drove, compared with 67% of women. A further 13% of working women took public transit in 1996 and 8% walked to work. This compared with 8% and 6%, respectively, of men.

Data on mode of transportation to work came from a new census question, which was designed for use in planning urban development and transportation networks.

Median commuting distance to work, by CMA

Source: Census of Canada, 1996

Employed persons driving to work, by CMA

Workers in southern Ontario commute the farthest

Residents of census metropolitan areas (CMAs) commuted a median distance of 7.4 km, one way. In other words, half of all employed workers living in CMAs commuted more than 7.4 km, and half commuted less than 7.4 km. This distance was one-third farther than that travelled by persons living outside a CMA, who commuted a median distance of 5.6 km.

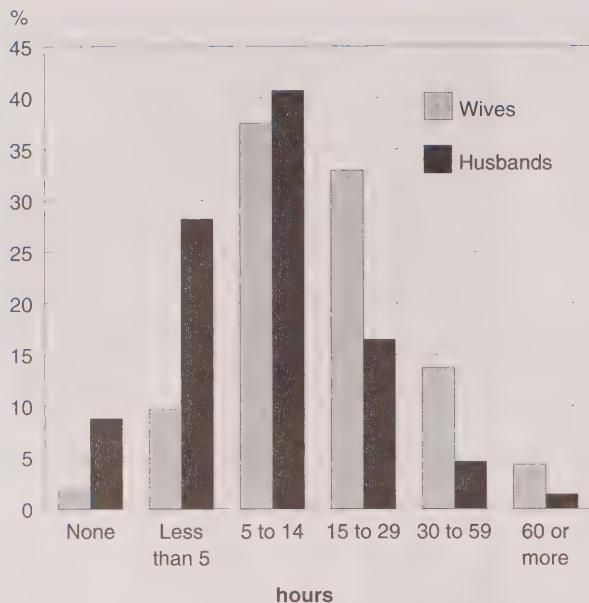
On the whole, employed people living in the Golden Horseshoe area of southern Ontario commuted farther than anyone else in Canada. One-third of the labour force in the CMA of Oshawa and one-fifth in both Toronto and Hamilton travelled more than 20 km to work one way. This contrasted sharply with Regina and Winnipeg, where less than 6% of commuters travelled over 20 km to work in 1996.

Commuters in seven of Canada's CMAs led the way in 1996 in having or finding alternatives to driving to work. The proportion of employed workers who drove to work was below the national average of 73% in Ottawa-Hull, Toronto, Halifax, Montréal, Victoria, Winnipeg and Vancouver.

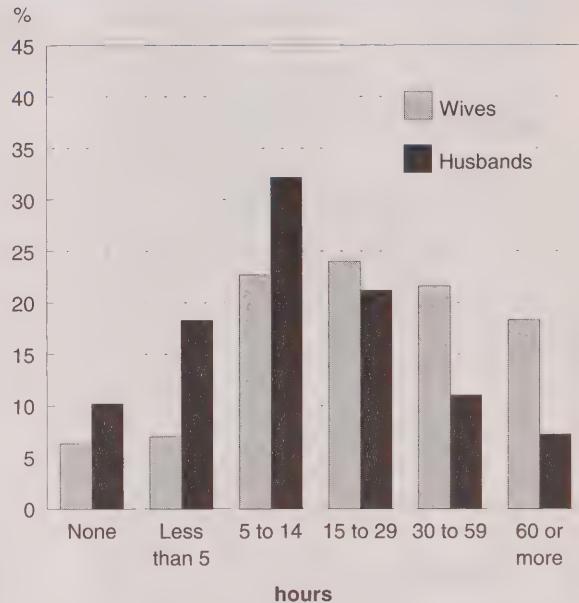
Conversely, 80% or more of commuters in eight of Canada's CMAs reported that they drove to work in 1996. Trois-Rivières led all CMAs at 84%, followed by Chicoutimi-Jonquière and St. Catharines-Niagara, at 83% each.

In terms of alternatives, public transit was most popular (and/or available) in Canada's two largest CMAs. About 22% of employed workers used public transit to get to work in Toronto, as did 20% of those in Montréal.

Proportion of time spent on unpaid housework, by full-time paid workers



Proportion of time spent on unpaid child care, by full-time paid workers



Source: Census of Canada, 1996

Amount of unpaid work depends on employment status

Among private households in Canada, 92% of women reported spending time doing unpaid housework or home maintenance in the week preceding the census, compared with 85% of men.

For both wives and husbands, the amount of time spent in paid employment tended to reduce the amount of unpaid work reported.

Among wives who worked full time (30 or more hours) for pay in the week prior to the census, 51% reported spending 15 or more hours doing unpaid housework. In contrast, among wives with no paid employment, 70% did 15 or more hours of housework.

Among husbands with full-time employment, 23% spent at least 15 hours doing housework; for those with no paid employment, the proportion was 36%.

The time that both men and women spent caring for children depended greatly on whether they were employed.

Individuals with full-time paid jobs had less time to spend with their children: about 64% of wives with full-time paid jobs spent 15 hours or more looking after their children in the week prior to the census. This was the case for 79% of wives who did not have a full-time paid job.

About 18% of wives with a full-time paid job said they spent 60 hours or more caring for children. This figure more than doubled to 46% among wives who did not have a full-time paid job.

The situation was similar for men. About 42% of husbands who did not have paid work spent 15 hours or more on child care, compared with 39% of those who had a full-time job.

Some 7% of husbands with full-time paid jobs devoted at least 60 hours to caring for children, while 15% of those who were not employed full time devoted 60 or more hours of care.

Unpaid work

The 1996 Census was the first to include questions on unpaid household work. Respondents aged 15 and over were asked to report the amount of time they spent in the week prior to the census doing unpaid housework or home maintenance, taking care of children without pay, and providing care or assistance to seniors.

Overall, 90% of Canadians reported that they did some form of unpaid work in the week prior to the census. Some 89% did unpaid housework or home maintenance, 38% cared for children, and 17% spent time caring for a senior.

These figures varied considerably by sex. Not surprisingly, those working full time for pay and those with no paid employment differed considerably. And, as could be expected, the presence of children was also an important influence on the hours of unpaid work reported.

While men, on average, spent more time than did women on paid employment, women performed much more unpaid work in all three categories of activity on which the census collected information.

Note

Respondents were asked to report all time spent on household activities, even if these overlapped. For example, someone who spent one hour on both housework and child care would be expected to report that time in both categories. For this reason, the hours reported for each activity do not add to the total for all unpaid work.

While this is the first time that unpaid work has been collected on the census, Statistics Canada has also generated data on unpaid work through the General Social Survey (GSS).

The 1986 and 1992 GSS Time Use Surveys provided estimates of the time people devoted to the various

components of unpaid household work, as well as the amount of time they devoted to paid employment. (Another time use survey is being conducted in 1998. Results will be available in 1999.) The design of these surveys allows total (non-overlapping) hours of unpaid work to be estimated. Total time devoted by individuals to paid and unpaid work can also be estimated. (See, for example, Statistics Canada, 1996 and 1995.) Unpaid work data from the census complement these surveys with data for small areas and for specific sub-groups of the population.

Definitions

The data on unpaid housework, unpaid child care and unpaid care or assistance to seniors are presented for the population aged 15 and over living in private households.

The data on unpaid child care are also presented for spouses, including common-law partners.

Spouses: persons of opposite sex who are legally married to each other and living in the same dwelling.

Common-law partners: two persons of opposite sex who are not legally married to each other but who live together as husband and wife in the same dwelling.

Children: in this study, children refer to never-married sons and/or daughters under 15 living in the same dwelling as their parents.

Statistics Canada. *The Statistics Canada Total Work Accounts System*. Catalogue no. 89-549-XPE. Ottawa, 1996.

—. *As Time Goes By...Time Use of Canadians*. Catalogue no. 89-544-XPE. Ottawa, 1995.

Charts and text for this issue's "Key labour and income facts" were adapted from Statistics Canada's *The Daily*, Census Release, March 17, 1998. For more information, contact Bruce Rogers of the Labour and Household Surveys Analysis Division at (613) 951-2883; e-mail: rogebru@statcan.ca.

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In the works

Here are some of the topics to be featured in upcoming issues

■ Two earners, two schedules

An examination of the prevalence of shift work among full-time dual-earner couples. Shift work tendencies are analyzed, for both husbands and wives. The degree of overlap in work schedules among shift-work and non-shift-work couples is also examined.

■ Looking for work

The unemployed are now more likely to use passive and informal job search methods, such as looking at job advertisements and contacting family and friends, and less likely to conduct active job searches through organizations such as public employment agencies and unions. At the same time, they are increasingly using either four or more methods, or just one method (often passive). This study examines these trends, with particular attention to people continuously unemployed for one year or more.

■ Post-retirement income

A look at the relationship between pre-and post-retirement income for people who retired in the early to mid-1990s, by sex, age of retirement and region.

■ Do married couples retire together?

This study examines the retirement sequence of married couples in which both partners work past the age of 50. Among the factors considered: who retires first, the time lapse between the individual retirement events, and the effect of age, age difference, income and education.

■ Home-based entrepreneurs

Both home-based work and self-employment have expanded considerably over the last two decades. This article looks at the characteristics of the self-employed who work at home.

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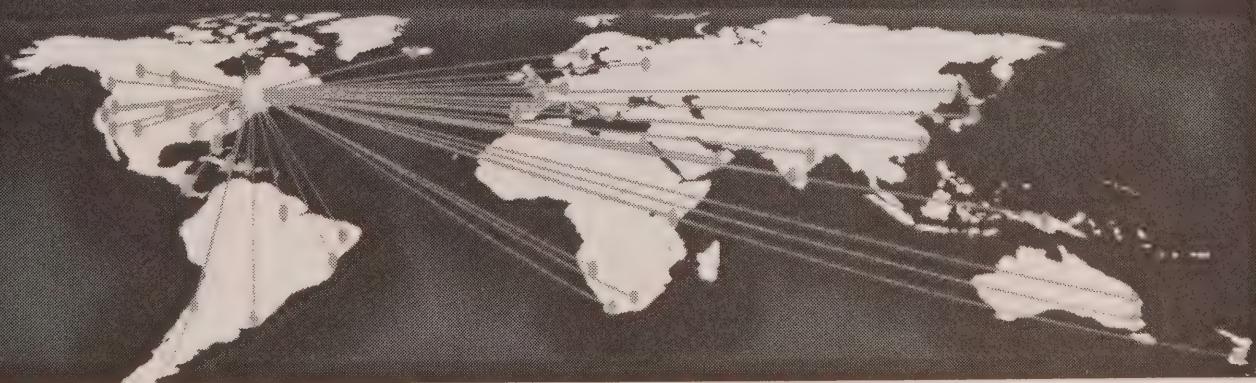
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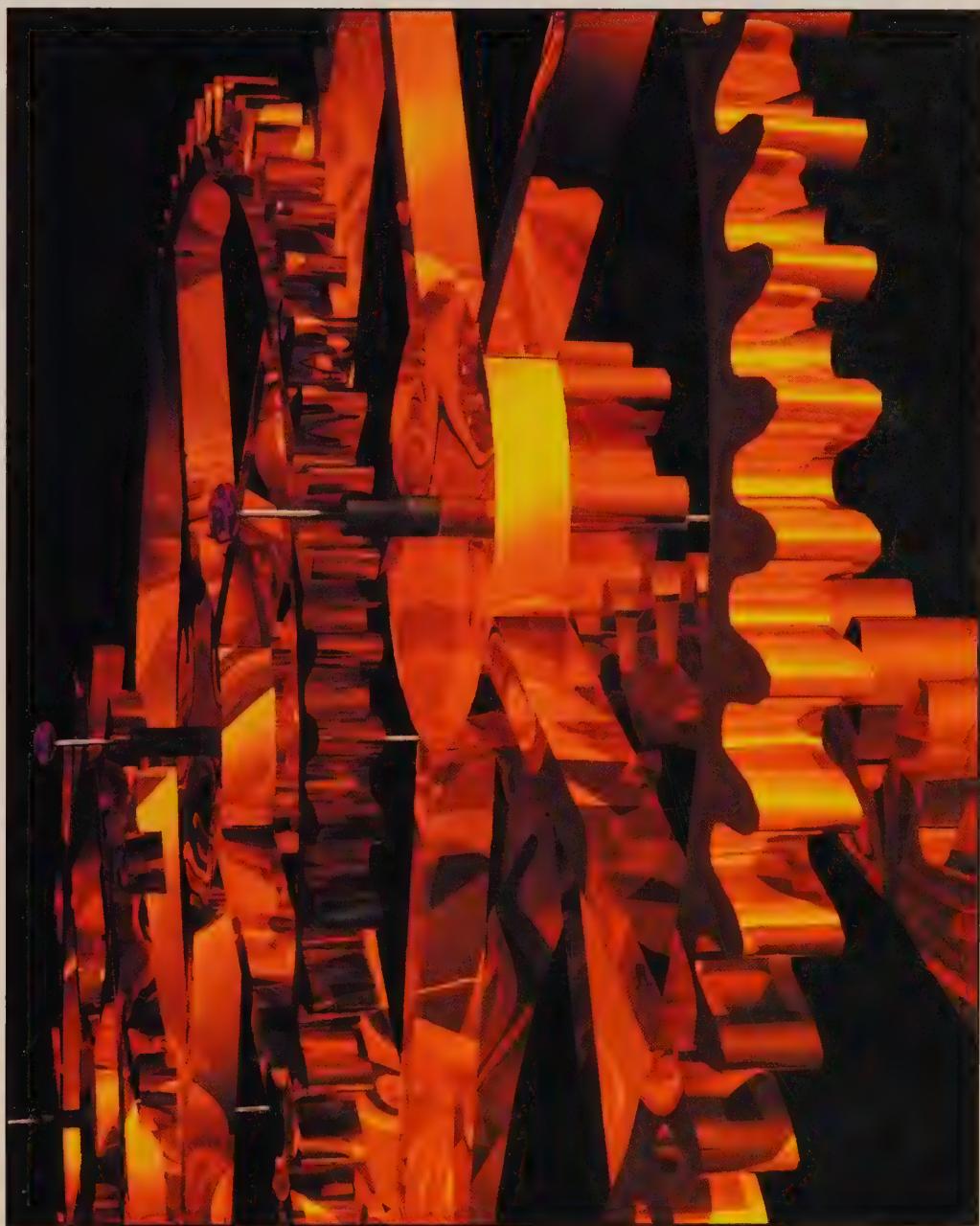
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*North American labour force data
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■ Articles

- 3 Computer programmers**
Dave Gower

This brief note updates employment data for computer programmers and systems analysts, to the second quarter of 1998.

- 9 Couples working shift**
Katherine Marshall

In 1995, 4 out of 10 dual-earner couples working full time had at least one spouse working shift (that is, other than "9 to 5"). This article examines several job and life-cycle characteristics to determine who is more likely to work shift.

- 15 Labour force participation in the 1990s**
Deborah Sunter and Geoff Bowlby

Labour Force Survey data show that most of the recent decline in labour force participation is attributable to the upswing in school attendance and the trend toward earlier retirement.

- 22 Looking for work**
Lee Grenon

Unemployed job seekers have changed their approach to looking for work. This article, which presents data for 1977 to 1997, examines job search methods by age, sex, education and duration of unemployment.



Perspectives on Labour and Income (Catalogue no. 75-001-XPE; aussi disponible en français: *L'emploi et le revenu en perspective*, n° 75-001-XPF au catalogue) is published four times a year under the authority of the Minister responsible for Statistics Canada. ©Minister of Industry 1998. SUBSCRIPTION RATES: \$58 a year in Canada, US\$58 for all countries outside Canada. Single issue \$18 in Canada, US\$18 for all countries outside Canada. ISSN: 0840-8750. All prices exclude sales tax.

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Our 10th anniversary logo was designed by John Bradford of the Labour and Household Surveys Analysis Division.

27 Retirement patterns of working couples

Dave Gower

In this study, a link is established with spouses' retirement dates to determine how age, age difference, education and post-retirement income influence couples in their decisions to retire.

31 Home-based entrepreneurs

Dominique Pérusse

As a complement to "Working at home," published in the Summer 1998 issue, this study focuses on the self-employed who work from home. Who are they? What do they do? Why do they work from home? These are some of the questions addressed.

We welcome your views on articles and other items that have appeared in *Perspectives*. Additional insights on the data are also welcome, but to be considered for publication, communications should be factual and analytical. We encourage readers to inform us about their current research projects, new publications, data sources, and upcoming events relating to labour and income.

Statistics Canada reserves the right to select and edit items for publication. Correspondence, in either official language, should be addressed to: Heather Berrea, What's new? Co-ordinator, *Perspectives on Labour and Income*, 5-D Jean Talon Building, Statistics Canada, Ottawa K1A 0T6. Telephone (613) 951-8613; fax (613) 951-4179; e-mail: berrhea@statcan.ca.

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■ We always hope that the topics we select and the analysis we present are of interest to readers. And most of our efforts appear to be well received. But, every once in a while, an article draws an exceptional response. Such was the case with Dave Gower's article "The booming market for programmers" in our Summer 1998 issue.

Of course, we had expected better-than-average feedback, given the continued public interest in computer developments, generated by issues such as the Y2K problem. But, frankly, even we were surprised by the

strong response from both the media and our general readers: our phones just kept ringing.

We appreciate your interest in this subject and your need for timely information. And so we asked Dave to prepare the brief update that follows.

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Computer programmers

This note updates employment data for computer programmers and systems analysts, to the second quarter of 1998.¹

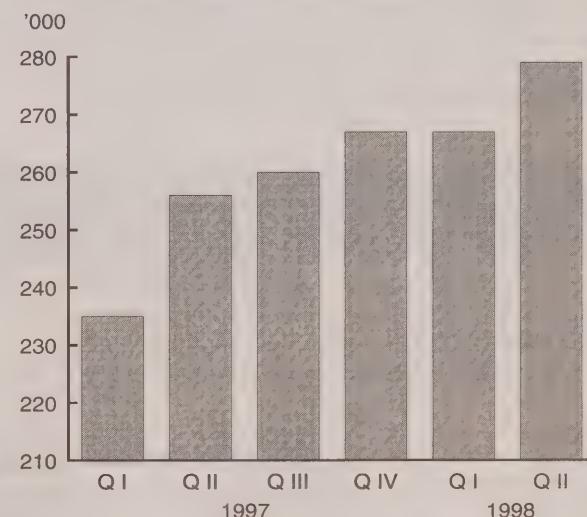
The previous study focused on trends to the end of 1997. In the preceding five years, the number of jobs had risen by over 90%. In spite of this sharp increase in demand, average weekly hours were about the same for programmers as for other scientific and technical workers. At the end of 1997, programmers' average pay (\$843 per week or \$22.24 an hour) was close to that of comparable workers.

Employment was flat at the beginning of 1998. By the second quarter, however, growth had resumed, and employment had risen to nearly 280,000 (Chart). Since the end of 1992, the number of jobs for software workers has now doubled.

Not surprisingly, the number of programmers reporting unemployment has remained low. During the first two quarters of 1998, the rate hovered around 2%, about half that of other scientific and technical workers, and less than one-quarter the rate for the labour force as a whole.

Pay for programmers and systems analysts continues to keep pace with that of comparable workers. In the second quarter of 1998, software workers averaged \$863 per week, slightly less than that of other scientific and technical workers (\$894), but much higher than that of the Canadian workforce as a whole (\$583). This continues the trend seen since the beginning of 1997 (when earnings data first became available from the Labour Force Survey). □

Employment for computer programmers levelled off, then rose again in 1998.



Source: Labour Force Survey

■ Note

1 For definitions and a detailed look at past trends, see "The booming market for programmers," *Perspectives on Labour and Income* (Statistics Canada, Catalogue no. 75-001-XPE) 10, no. 2 (Summer 1998): 9-15.

Dave Gower is with the Labour and Household Surveys Analysis Division. He can be reached at (613) 951-4616.

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Highlights

■ Couples working shift

... p. 9

- According to the 1995 Survey of Work Arrangements, in 1.7 million dual-earner couples both husband and wife worked full time. In nearly 4 out of 10 such couples (634,000) at least one spouse worked shift (not a regular "9 to 5" job).
- Couples working shift were much more likely to report varying start and end times for at least one spouse's job (74% versus 32% for non-shift couples). And when they worked fixed hours, they did not have as much time to be together (11.5 hours versus almost 16 hours for non-shift couples).
- Non-shift couples with fixed hours (68% or 695,000) reported the greatest average period during which both partners were at work (7 hours and 45 minutes per day). In contrast, among 25% of shift couples (40,000), both partners worked at completely different times of the day.
- The likelihood of working shift varied by occupation. Blue-collar occupations (in which men were more prominent) had above-average incidence rates for shift work, as did jobs in medicine and service. Professional and sales occupations both registered high rates of shift work for women.
- Unionized workers were more likely than others to work shift. Some 32% of husbands and 23% of wives who belonged to a union worked shift, compared with 20% and 18% of non-unionized workers.
- Working in the public sector greatly reduced the incidence of shift work among wives (10% worked shift, compared with 23% in the private sector), but only slightly reduced it for husbands (22%, compared with 27%), mainly because of the male predominance in law enforcement and firefighting, in which shift work is prevalent.
- The presence of children was associated with the likelihood of working shift. When full-time dual-earner couples had children under 16, the husband was more likely to work shift and the wife to work regular days (56%). These couples also had, on average, the highest number of preschoolers at home (1.4).

■ Labour force participation in the 1990s

... p. 15

- Some analysts attribute the drop in labour force participation in recent years to labour market discouragement. However, for the two age groups that account for the decline, discouragement plays only a minor role.
- More than 90% of the shortfall between the expected and the actual participation rates can be attributed to those aged under 25 or over 54. Between 1989 and 1997, youths (15 to 24) accounted for 64% of the overall shortfall and persons aged 55 or over accounted for a further 27%.
- An upswing in school attendance accounts for half of the decline in young people's participation. A further 38% is due to a drop in the proportion of full-time students in the labour force. The remaining 11% is attributable to a decline in participation among non-students or part-time students.
- Persons aged 55 and over have been the second greatest contributor to the overall decline in labour force participation in the 1990s, mainly because of earlier retirement. The participation rate for men aged 55 to 64 declined from 77% in 1976 to 59% in 1995 (edging up slightly in 1996 and 1997). Even though the rate for women increased over the 20-year period, it was not sufficient to reverse the overall trend.

■ Looking for work

... p. 22

- Over the past two decades, the unemployed have modified their job search patterns. Their use of public employment agencies has dropped by about half, as they have come to rely more on job advertisements and personal networks. They are also increasingly using either four or more search methods or just one.
- The most significant change has been the declining use of public employment agencies. In 1977, during a typical four-week period, 60% of all unemployed job seekers used a public employment agency. By 1997, this had dropped to 32%. Young people (15 to 24) in particular have moved away from this method, down from 62% to 26%.

- Contacting employers directly remains the most common job search method. Nevertheless, this approach diminishes with the duration of unemployment. In 1997, some 71% of job seekers unemployed for 5 to 26 weeks contacted an employer at least once during the four-week reference period, compared with 63% of those out of work more than a year.
- The incidence of looking at job advertisements increased until recently. In 1977, the proportion of unemployed job seekers who looked at job advertisements in a four-week period was 40%. By 1993, it had reached 59%, but then dropped back to 47% in 1997.
- Offering to provide labour by placing or answering an advertisement has become more common in the 1990s. The proportion of job seekers who did so over a four-week period increased from 15% in 1977 to 19% in 1997. Since 1977, for every 100 job seekers who have looked at advertisements, between 31 and 40 have placed or answered one.
- Enlisting the help of friends and family grew in frequency between 1977 and 1997, from 13% to 22%. This approach is used more commonly by university graduates and those aged 25 to 34.
- The use of private employment agencies has remained relatively low since 1977, being the choice of just 3% to 5% of all job seekers. However, 10% of university graduates looking for work used such agencies in 1997.
- Over the past 20 years, the percentage of unemployed job seekers who approached a union for help finding work has dropped from 4% to 2%. Contacting a union is a method used almost solely by men. Job seekers with a postsecondary certificate or diploma, such as a trade certificate, also make more use of unions.

■ Retirement patterns of working couples ... p. 27

- Among 312,000 retired working couples in April 1997, one-third had retired "together" (within a year of one another). This was most likely to happen when the husband was just one or two years older than his wife, and least likely when the husband was five or more years older (30%) or when the wife was older (28%).

- Despite the fact that they were on average two years younger than their husbands, women were somewhat more likely to retire first. In 37% of couples, wives retired at least one year ahead of their husbands; husbands preceded their wives in 30% of couples.
- Women joined their retired husbands sooner than men followed their wives into retirement. This is best illustrated by same-age couples. Among the 14,000 same-age couples in which the husband retired first, wives waited only three-and-a-half years to retire; among the 16,000 in which the wife retired first, men waited an average five-and-a-half years.
- Data suggest that wives are more likely than husbands to take the timing of a spouse's retirement into account when making their own decision to retire.

■ Home-based entrepreneurs ... p. 31

- In November 1995, more than half of the 2.1 million self-employed individuals in Canada operated their business from home.
- The Survey of Work Arrangements found that entrepreneurs aged 55 and over and women aged 25 to 44 were the most likely to base their business at home. Moreover, in dual-earner families, women were more likely to do so than men (61% versus 51%). The proportion for women reached 77% when a preschool-aged child was at home.
- One-third of the self-employed worked in goods-producing industries – mainly in agriculture and construction – and generally worked from home: some 91% of self-employed agricultural workers and 68% of construction entrepreneurs were home-based. The remaining two-thirds of the self-employed were in services. Home-based entrepreneurs in this sector were concentrated in trade (12%), business services (11%) and personal services (9%).
- Home-based workers were more likely than other self-employed persons to work varying hours per week, or to work six or seven days per week.

■ What's new?

... p. 35

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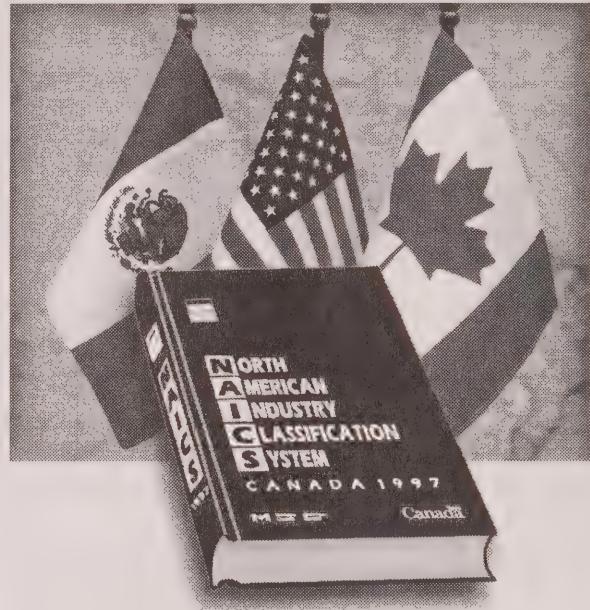
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Couples working shift

Katherine Marshall

A great deal of attention has been paid to the phenomenal growth in dual-earner families, and the difficulty such families face in balancing work and family life. Often, the focus is on the number of hours, both full- and part-time, worked by these couples. However, little is known about which hours of the day they work. The work schedules of family members, particularly those who work shift,¹ can add further complexity to family life. In general, family conflict tends to be greater if at least one spouse works shift (Presser, 1987; Staines and Pleck, 1983).

Schedules that are not "9 to 5" can increase the difficulty of co-ordinating work and family life. On the other hand, staggered employment schedules can be an advantage for families with young children who need, or prefer, to reduce their reliance on paid child care.

When workers have some choice or control over their shifts, problems relating to shift work and family life are reduced (Staines and Pleck, 1983). The November 1995 Survey of Work Arrangements (SWA), used for this study, asked why people worked shift, but did not collect detailed information on choice or control (see *Data source and definitions* and *Choosing shift*).

This article examines the prevalence of shift work among full-time dual-earner couples. In order to determine which husbands and wives are likely to work shift, it analyzes several job and life-cycle characteristics. It also examines the degree of work schedule overlap among shift and non-shift couples with fixed work hours.

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Data source and definitions

The Survey of Work Arrangements (SWA), sponsored by Human Resources Development Canada, was conducted as a supplement to the November 1995 Labour Force Survey (LFS). It collected, among other things, data on the work schedules and hours of work of all paid workers.

Full-time dual-earner couples: married or common-law couples in which, at the time of the survey, both partners were paid workers who usually spent 30 or more hours a week at their main job. The rationale behind selecting such

couples is that two full-time work schedules are more likely to have an onerous effect on family life than are one or more part-time schedules.

Employee: any person who receives remuneration, usually in the form of a wage or salary from an employer.

Shift work: a regular evening, night or graveyard shift, rotating or split shift, on-call, casual or other form of irregular work arrangement.

Non-shift work: a regular daytime schedule.

Choosing shift

All shift employees were asked for the main reason they worked this kind of schedule. Although the majority of both husbands and wives said it was the requirement of the job, 7% of husbands and 11% of wives reported something else. The most common non job-related reason reported by husbands was to earn more money. For wives, half of those who reported reasons other than job requirement said that care for children and other family members was their main motive for working shift.

Respondents were asked to select only the main reason for shift work. For those who reported a reason other than job requirement, shift schedule was probably the preferred arrangement. However, for those who stated requirement of the job as the main reason, the arrangement may or may not have been preferred, and for those who did prefer the schedule, their reason is not known.

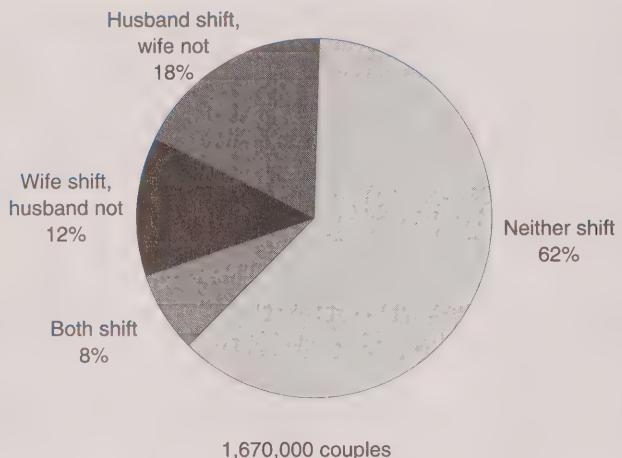
Shift work among dual-earners common

According to the SWA, in 1.7 million dual-earner couples both the husband and wife worked full time² in November 1995. In 62% of these couples (just over one million) both partners worked a regular daytime schedule (Chart A). For the remaining 38% (634,000) at least one spouse worked shift.

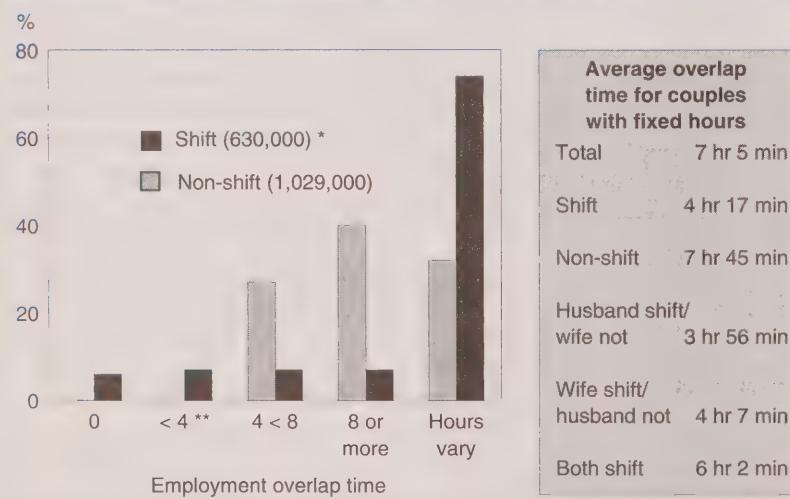
In 18% of dual-earner couples husbands worked shift while wives had a regular day job; in 12%, wives worked shift while husbands worked regular days; and in 8%, both worked shift.

Time is of the essence

The 1992 General Social Survey found that full-time dual-earner couples were among the most "time-crunched" groups in society (Frederick, 1993). Both the number of hours these couples spend at work and their schedules affect potential time available for

Chart A**In 4 out of 10 dual-earner couples at least one partner works shift.**

Source: Survey of Work Arrangements, November 1995

Chart B**In one out of 4 shift couples both spouses have fixed work hours.**

Source: Survey of Work Arrangements, November 1995

Note: Excluded are couples who did not state their hours.

* Full-time dual-earner couples in which at least one spouse works shift.

** Excludes 0 hours.

family activities. Theoretically, spouses who work the same hours can spend more time together than those who work two different schedules. However, couples with different schedules can increase the amount of time at least one partner could be at home, which may be a positive trade-off if there are children or elderly relatives in need of care.

According to the 1995 SWA, shift couples were more likely than non-shift couples to have one or both spouses with varying start or end times for their job (74% or 465,000 couples, compared with 32% or 335,000 couples) (Chart B). Slight variations, such as one- or two-hour differences at the end or start of each workday, might not cause too much disruption to family life. Wide variations, however, or not knowing from week to week what hours one or more family members will be working, could put extra strain on the family because making leisure plans and/or arranging child care becomes more difficult. (Because their hours were varied, neither the degree of variation experienced nor their employment overlap could be determined for some 800,000 couples.)

Couples with fixed hours

Non-shift couples with *fixed hours* (68% or 695,000) reported the greatest average period during which both partners were at work (7 hours and 45 minutes per day). Of the shift couples with *fixed hours* (26% or 165,000), those in which both partners worked shift had the next highest employment overlap at just over 6 hours, and couples in which only one partner worked shift while the other worked a regular daytime schedule had the least overlap, at approximately 4 hours. About one-quarter of shift couples with *fixed hours* had no overlap, meaning about 40,000 full-time dual-earner couples worked at completely different times of the day.³

Table 1

Average daily work and overlap hours of full-time dual-earner couples with fixed hours

	Number	Work hours			Total daily hours			
		Total	Husbands	Wives	Both at work *	Only one spouse at work		
						'000	hours:minutes	Husband at work	Wife at work	Neither at work **
Total	860	16:05	8:16	7:49	7:05	1:11	0:44	15:00
Non-shift	695	15:55	8:10	7:45	7:45	0:25	-	15:50
Shift	165	16:46	8:38	8:08	4:17	4:21	3:51	11:31
Husband shift								
Wife not	96	16:28	8:36	7:52	3:56	4:40	3:56	11:28
Wife shift								
Husband not	45	16:28	8:16	8:12	4:07	4:09	4:05	11:39
Both shift	24	18:33	9:25	9:08	6:02	3:23	3:06	11:29

Source: Survey of Work Arrangements, November 1995

* The time per day that both husband and wife are at work at the same time (employment overlap).

** The time per day that both husband and wife are not at work at the same time. This is calculated by subtracting work times from 24 hours.

Among the full-time couples in which both partners had usual work start and end times, non-shift couples had the least average combined employment hours (15 hours, 55 minutes), while those in which both partners worked shift had the most (18 hours, 33 minutes) (Table 1). Furthermore, because non-shift couples experienced the greatest employment overlap, they reported the longest period when neither spouse was working (roughly 16 hours). On the other hand, shift couples had an average 4 hours and 20 minutes less shared time off each day, because their employment overlap was less, and their average workdays were longer.⁴

Determinants of shift work...

One in four husbands and one in five wives in full-time dual-earner couples worked shift in November 1995. A number of factors govern the decision to work shift. Some people may do so because their job requires it. Others may because of family responsibili-

ties. Shift work may also be taken on for financial reasons (as it allows someone to work at a second job, or to work unusual hours that can sometimes command extra pay). And some people may simply prefer an irregular and/or non-day schedule, or have other personal reasons for selecting this arrangement.

Therefore, job and life-cycle characteristics are broad proxies for "no choice" and "preference" as reasons for working shift. The two explanations are not mutually exclusive. For example, many workers in service occupations, which have high rates of shift work, may be working shift because of the nature of the job; others may have chosen the job because it enables them to work shift.

...can be job-related...

The 1991 SWA found that shift work was typically more common for those who were single, male, young and engaged in essential service or blue-collar jobs (Sunter, 1993). Similarly,

the 1995 data show that occupation⁵ is a good indicator for predicting the likelihood of working shift. All the broad blue-collar occupations – primary, processing, machining, fabricating, transport equipment operating, material handling and other crafts – had above-average rates for shift work, as did occupations in medicine and service (Table 2). Because 4 out of 10 husbands were employed in blue-collar occupations, compared with only one in 10 wives, their overall rate of shift work was higher. In only two occupational groups did wives have higher rates of shift work: professional (24% versus 18% for husbands) and sales (30% versus 17%). Within these broad groups, two sizeable sub-groups, nursing and commodity sales, both of which are female-dominated, had high rates of shift work.

Shift work was also associated with job characteristics related to occupation and industry. Working in a unionized job increased the likelihood of working shift for both sexes,

Table 2
Full-time dual-earner couples by occupation and selected job characteristics

	All workers		Proportion working shift	
	Husbands	Wives	Husbands	Wives
'000				
Total	1,670	1,670	428	329
			%	
Occupation	100	100	26	20
Managerial and administrative	19	20	11	10
Professional	18	26	18	24
Medicine and health	2	10	56	48
Other professional *	16	16	13	10
Clerical	6	29	22	9
Sales	7	7	17	30
Service	8	9	56	47
Primary **	2	--	38	--
Processing, machining and fabricating	22	7	33	26
Processing	5	2	54	40
Machining	4	--	28	50
Fabricating	13	6	27	21
Construction	8	--	--	--
Transport equipment operating	5	--	39	--
Material handling and other crafts	5	2	50	--
Union coverage	100	100	26	20
Unionized †	47	42	32	23
Non-unionized	53	58	20	18
Multiple jobholder	100	100	26	20
Yes	4	3	30	34
No	96	97	25	19
Sector	100	100	26	20
Public	21	24	22	10
Private	79	76	27	23
Job tenure	100	100	26	20
12 months or less	15	13	24	20
13 to 60 months	24	29	28	22
61 to 120 months	20	27	25	22
More than 120 months	41	31	25	15

Source: Survey of Work Arrangements, November 1995

* Includes natural sciences, social sciences, religion, teaching, and artistic and literary.

** Includes farming, fishing, forestry and mining.

† Includes both union members and persons who are not union members, but who are covered by collective agreements.

though more so for husbands than for wives. Some 32% of husbands and 23% of wives who belonged to a union worked shift, compared with 20% and 18% of those who did not.

Multiple jobholders (particularly wives) were also more likely to work shift. (Approximately one in three multiple jobholders had a main job in which he or she worked shift.)

Working as a public employee greatly reduced the incidence of shift work among wives (10% worked shift, compared with 23% in the private sector), and slightly reduced it for husbands (22%, compared with 27%). On the other hand, essential service work, such as law enforcement or firefighting, increased the likelihood of shift work. Men were more likely

than women to hold such jobs. Finally, seniority appeared to have little effect on whether men worked shift, and only a slight influence on the situation of women. Only 15% of wives who had been at their job for 10 years or longer worked shift.

...or life-cycle related

On average, younger husbands and wives were more likely to work shift (Table 3). For example, husbands who worked shift were an average six months younger than those who did not, and wives who worked shift were an average one-and-a-half years younger than those who did not.

Also, couples with children under 16 at home were somewhat more likely than others to have at least one spouse working shift. Some 26% of couples who both worked shift had at least one preschool aged child at home, compared with only 23% of non-shift couples.

The presence of children under 16 was highest among couples in which the husband worked shift and the wife worked regular days (56%); these couples also had, on average, the highest number of preschoolers at home (1.4). These findings support earlier research that suggests couples with children may try to stagger their schedules, preferring the husband to work shift: "...it may be that both spouses prefer for the husband rather than wife to work a non-day shift – if the options are there – because of the children" (Presser, 1984).

Statistical determinants

In order to determine which job or life-cycle factors better predict shift work among husbands and wives, this study used multivariate analysis (see *Logistic regression*). This technique isolates each variable and reveals its relationship with the probability of shift work while holding all other variables constant. Thus, it is possible to learn, for example, whether unionization still influences shift status when

Table 3
Full-time dual-earner couples by selected personal characteristics

	No shift work	Shift work			Both
		Total	Hus-band only	Wife only	
years					
Average age					
Husbands	41	40	40	39	39
Wives	38	37	38	37	36
%					
With children at home					
At least one under 16	50	51	56	45	49
At least one under 6	23	24	24	23	26
number					
Average number of children at home					
Children under 16	1.66	1.68	1.66	1.65	1.77
Children under 6	1.29	1.32	1.41	1.23	1.27

Source: Survey of Work Arrangements, November 1995

occupation, other job characteristics and life-cycle variables are the same for everyone.

Regression analysis shows that class of worker, union coverage, job tenure, occupation and partner's employment status were each significantly associated with shift work for both husbands and wives when all other variables were held constant (Appendix). For example, those who had jobs in the private sector in November 1995 had significantly higher odds of working shift than public employees – 1.7 times greater for husbands and 2.6 for wives. Also, workers who belonged to a union were just over 2 times more likely to work shift than those who did not.

Logistic regression

Logistic regression models the probability of a certain condition or outcome as a function of one or more discrete or continuous variables. The coefficients from a fitted logistic model are frequently used to estimate the odds of the condition occurring for a particular level of a variable, compared with a reference level of the variable, when all other

Although cross-tabulations revealed only a slight relationship between shift work and job tenure, regression analysis shows significantly increased odds of working shift for both husbands and wives who had spent 10 years or less at their job, compared with those who had tenure of 20 years or more. Husbands and wives in service jobs and professional medical positions had the highest odds of working shift. Husbands working in service occupations, for example, were 9.0 times more likely to work shift than those in managerial and administrative jobs.

Multiple jobholding was found to be significantly related to the probability of shift work for wives but not

independent variables in the model are held constant. In this article, the odds ratios were calculated using SUDAAN,⁶ a software package that can take account of some of the complexities of the design of the SWA. Here, the statistic indicates whether certain variables increase or decrease the chances (odds) of working shift.

for husbands: wives with more than one job were 2.1 times more likely to work shift than wives who had only one job.

The number of children at home did not significantly influence the likelihood of shift work, with one exception. For wives with two children under 16 at home, the odds of working shift were 0.6, or 40% lower than for those with no children under 16 at home. Also, the odds of working shift were twice as high for both husbands and wives if the other spouse worked shift. Finally, age proved to be statistically significant only for wives, whose chance of working shift decreased with age.

Summary

In November 1995, one in four husbands and one in five wives in full-time dual-earner couples worked shift. This translated into 634,000 couples in which at least one spouse worked shift. Shortage of time was more acute among these couples, who worked longer hours, on average, than non-shift couples, and had less potential time off together as a result of their staggered work schedules.

A number of job and life-cycle characteristics – occupation, public or private employment, union coverage, age, presence and age of children at home – were related to shift status, some more strongly than others.

Roughly one in 10 shift workers, proportionally more women than men, worked shift for reasons other than job requirement. The remaining 90% said their schedule was job-related, which may or may not mean their shift schedule was a preferred work arrangement. □

Acknowledgement

The author wishes to thank Georgia Roberts, Social Survey Methods Division, for her time and assistance with the logistic regression models.

Notes

1 In this article shift work refers to all schedules that are full-time, but are not regular daytime. (See *Data source and definitions* for more detail.)

2 The analysis is based on only those couples in which both spouses were employees.

3 These 40,000 couples are among the 26% of shift couples with regular work hours. More shift couples probably have zero employment overlap, but in the remaining 74% at least one partner has varying work hours, so employment overlap time cannot be calculated.

4 Shift work sometimes requires people to work fewer, but longer, days per week; for example, jobs requiring four consecutive days of 10-hour shifts, and then three days off.

5 Although not presented, industry, too, was found to be correlated with shift work. For men, high rates of shift work were found in primary industries and transportation, and for women, in trade and services.

6 SUDAAN is a trademark of the Research Triangle Institute. See Shah, Barnwell and Bieler (1997) for more details.

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Appendix

Odds ratios from logistic regression of the shift status of full-time dual-earner couples

Explanatory variables (1)	Husband works shift	Wife works shift
Job characteristics		
Private employee	1.7 ***	2.6 ***
Public employee	1.0	1.0
Unionized (2)	2.1 ***	2.2 ***
Non-unionized	1.0	1.0
Multiple jobholder	1.3 ns	2.1 *
Not a multiple jobholder	1.0	1.0
Job tenure		
12 months or less	1.6 * 1.8 ** 1.4 *	2.2 ** 2.2 ** 2.4 ***
13 to 60 months	1.8 **	2.2 **
61 to 120 months	1.4 *	2.4 ***
121 to 240 months	1.4 *	1.4 ns
More than 240 months	1.0	1.0
Occupation		
Managerial and administrative	1.0	1.0
Medicine and health	7.9 ***	6.6 ***
Other professional	1.1 ns	1.0 ns
Clerical	2.0 **	0.8 ns
Sales	1.4 ns	3.3 ***
Service	9.0 ***	6.8 ***
Primary occupations	3.7 ***	--
Processing, machining and fabricating	2.9 ***	2.2 ***
Construction	--	--
Transport equipment operating	4.7 ***	--
Material handling	5.0 ***	--
Other crafts	7.5 ***	--
Personal characteristics		
No children under 16	1.0	1.0
One child under 16	1.2 ns	0.9 ns
Two children under 16	1.2 ns	0.6 ***
Three or more children under 16	1.2 ns	1.3 ns
Spouse does not work shift	1.0	1.0
Spouse works shift	2.0 ***	1.7 ***
15 to 24 years old	1.0	1.0
25 to 34 years old	1.1 ns	0.7 *
35 to 44 years old	1.3 ns	0.7 ns
45 to 54 years old	1.2 ns	0.5 **
55 to 69 years old	1.1 ns	0.3 **

Source: SUDAAN Survey Data Analysis

(1) The shaded category for each variable represents the reference category, with which all other categories are compared.

(2) Includes both union members and persons who are not union members, but who are covered by collective agreements.

* Difference with reference category significant at the .05 level.

** Difference with reference category significant at the .01 level.

*** Difference with reference category significant at the .001 level.

ns Not statistically significant.

Labour force participation in the 1990s

Deborah Sunter and Geoff Bowlby

This decade opened with the longest economic downturn since the 1930s, and a recovery that appeared at first to be almost "jobless." Strong employment gains and improvements to family income in 1994 seemed to signal the end of the "jobless" recovery. However, job growth was again slow in 1995 and for most of 1996. Only since the beginning of 1997 has there been sufficiently strong job creation to nudge up the employment rate and average family incomes.

The labour force participation rate has not followed suit (Chart A). Some view its 1989 peak as the "norm," and attribute the failure of the rate to return to this norm primarily to labour market discouragement in the face of slack demand. This view has been reinforced by comparison with the U.S. participation rate, which dipped slightly during the early 1990s recession in that country, recovered to pre-recession levels by 1994, and continued to move higher in subsequent years (Chart B). The failure of the Canadian rate to match that pattern appears to some to be evidence that weak labour demand here is suppressing both the participation rate and the unemployment rate.

However, that assumption warrants closer scrutiny. An examination of the age structure of the decline in participation suggests that various forces have played an important role; in particular, the growing incidence of higher education, and the trend toward earlier retirement. Moreover, available measures of labour market discouragement indicate that this phenomenon, when defined as the

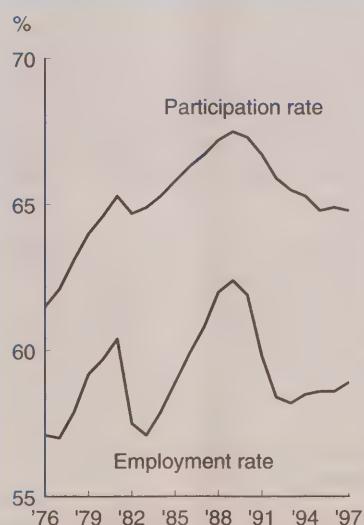
shortfall between current and pre-recession participation rates, is greatly overestimated (see *Measuring discouragement*).

Participation rate and age

Using the 1989 participation rate as a benchmark, some observers argue that over half a million would-be workers have given up looking for work in the belief that no suitable jobs are available. With sustained job growth, they say, this larger group would be drawn back into the labour force, keeping the unemployment rate high, at least in the short term.

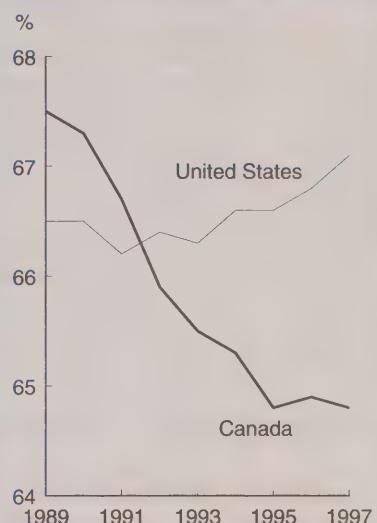
Yet when this comparison with 1989 is made for three broad age groups, fully 90% of the shortfall between the expected and the actual participation rates can be attributed to those aged under 25 or over 54.

Chart A
Labour force activity remains below 1989 peak.



Source: Labour Force Survey

Chart B
U.S. participation now exceeds Canada's.



Sources: Canada, Labour Force Survey; United States, Current Population Survey

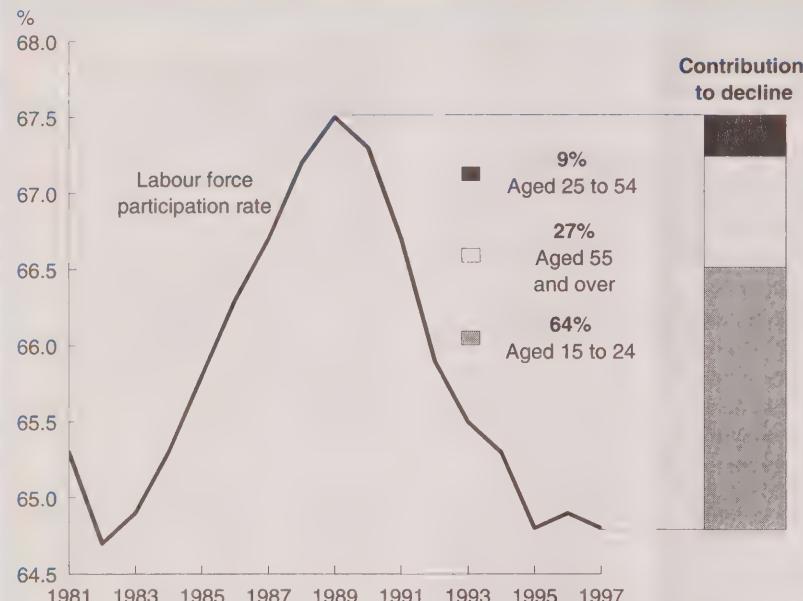
Between 1989 and 1997, youths (15 to 24) accounted for 64% of the overall shortfall and persons aged 55 or over accounted for a further 27%. The core working-age group of 25 to 54 year-olds explained only 9% (Chart C).

Furthermore, if the United States is used as a benchmark for the "normal" 1997 participation rate for Canada, these same two age groups contributed most to the difference between the two countries. In fact, the rate for 25 to 54 year-olds was only 0.3 percentage points lower in Canada than in the United States (Chart D). Therefore, any explanation of the shortfall in the participation rate, compared with either the 1989 benchmark or the current American figures, must focus on the younger and older age groups.

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Chart C

Most of the drop in the overall participation rate reflects falling youth participation.



Source: Labour Force Survey

Youths, school and labour force participation

How much of youths' contribution to the shortfall between 1989 and 1997 is the result of a long-term trend toward more schooling, and how much is the result of relatively poor labour market conditions?

Labour market conditions in the 1990s have been generally difficult for youths. Their employment rate plunged in the early 1990s, reflecting a drop in hiring and a rise in layoffs for those with lower skills and little seniority. Yet six years after recovery began, youth unemployment remained stubbornly high, while their employment and participation rates lingered at or near their recession troughs. Compared with the late 1980s, when they were more active in the labour force than adults, only 61% participated in 1997. Some 66% of adults did so.

Over the same period, full-time school attendance rates rose sharply, from 48% in 1989 to 55% in 1993 and a record 58% in 1997. While the surge in the early 1990s may have reflected some degree of discouragement with labour market conditions, the upward trend is far from new. Full-time rates rose strongly throughout the expansion years of the late 1980s, when the labour market situation for youths was robust.

Available data also indicate that school attendance rates for Canadian youths were greater than the comparable 1997 U.S. rates, and have also grown more sharply since 1989. This probably explains some of the difference between the trends in the two countries' youth participation rates (Table 1).

Clearly, youths understand that labour market success is increasingly tied to both initial educational attain-

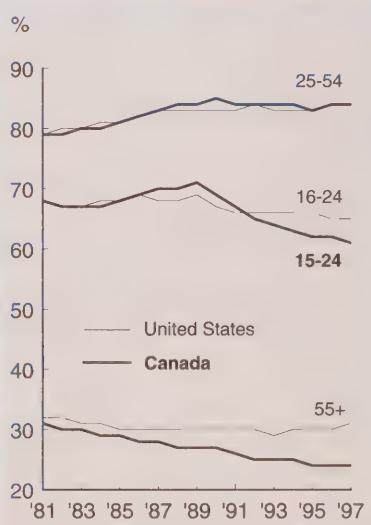
ment and skills developed through work experience and ongoing training. Young people seeking entry into almost any field of work today require much higher qualifications than their parents did 20 years ago (Crompton, 1995).

Whatever the reason for the upward shift to more schooling, the result is a direct dampening effect on labour force participation, since students are much less likely to be working or looking for work than their non-student counterparts (Table 2).

Over half of the decline in young people's participation between 1989 and 1997 can be attributed to the upswing in school attendance.¹ (Had their attendance rates remained the same as those of 1989, their participation rates would have been much closer to that of adults.) A further 38% is due to a drop in the proportion of full-time students in the labour force. (It is much less common now than a

Chart D

Younger and older workers account for the Canada-U.S. participation gap.



Sources: Canada, Labour Force Survey; United States, Current Population Survey

Table 1
October school attendance * rates

		1989	1997	Percentage-point increase
			%	
16 to 19 years	Canada	73.9	80.9	7.0
16 to 19 years	United States	73.6	78.4	4.8
20 to 24 years	Canada	28.0	38.9	10.9
20 to 24 years	United States	27.0	34.3	7.3

Sources: Canada, Labour Force Survey; United States, Current Population Survey

Note: Includes full- and part-time students.

* The U.S. rates, which are based on enrolment, may be overstated.

decade ago for youths to be working or looking for work if they are studying full time. Between 1989 and 1997, the participation rate of full-time students dropped by 7 percentage points.) Only 11% can be attributed to a decline in participation among non-students or part-time students (Chart E).

Table 2
Youth participation rates

	1980	1989	1993	1997
%				
Students	36.0	47.3	42.6	40.3
Non-students	85.2	87.2	84.6	85.2

Source: Labour Force Survey

Note: Data are eight-month averages (January to April, September to December).

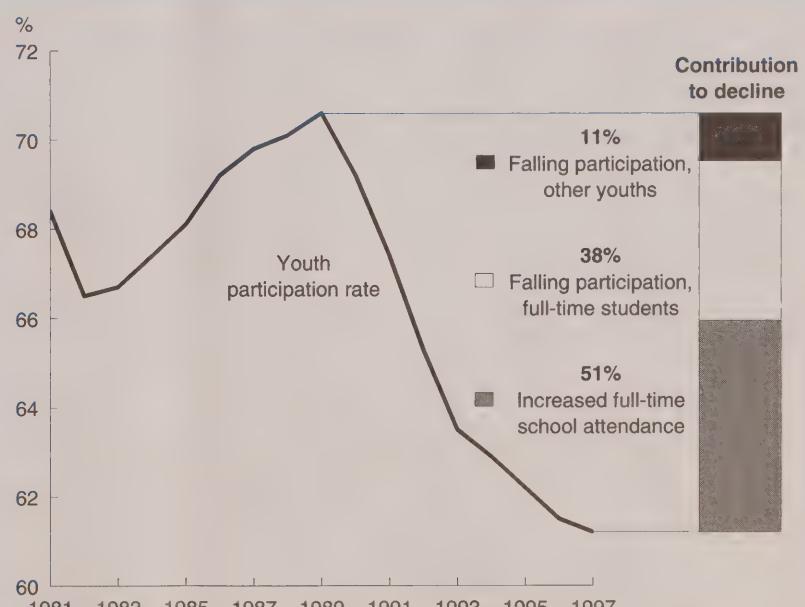
Increased school attendance has also had a dampening effect on youth participation during the summer. Growth in the proportion of youths who are between school years (that is, planning to return to school in September) accounts for about 30% of the overall decline in the youth participation rate from May to August. Almost 60% of the shortfall is accounted

Provincial variations in school attendance

Factors underlying the drop in the youth participation rate in the 1990s have varied across provinces. For example, in spite of rising participation among full- and part-time students and non-student youths, young people's overall rate in Saskatchewan actually dropped between 1989 and 1997, accounted for entirely by school attendance. A growing number of full-time students drove the rate down (Table 3).

A similar story prevailed in Manitoba, where participation by full-time students barely changed. About 84% of the drop in youth participation in that province can be attributed to higher full-time school attendance. In Newfoundland, the school attendance rate increased by 12 percentage

Chart E
The decline in youth labour force participation reflects mostly a rise in full-time school attendance.



Source: Labour Force Survey

Table 3
Factors of decline in youth participation rates by province

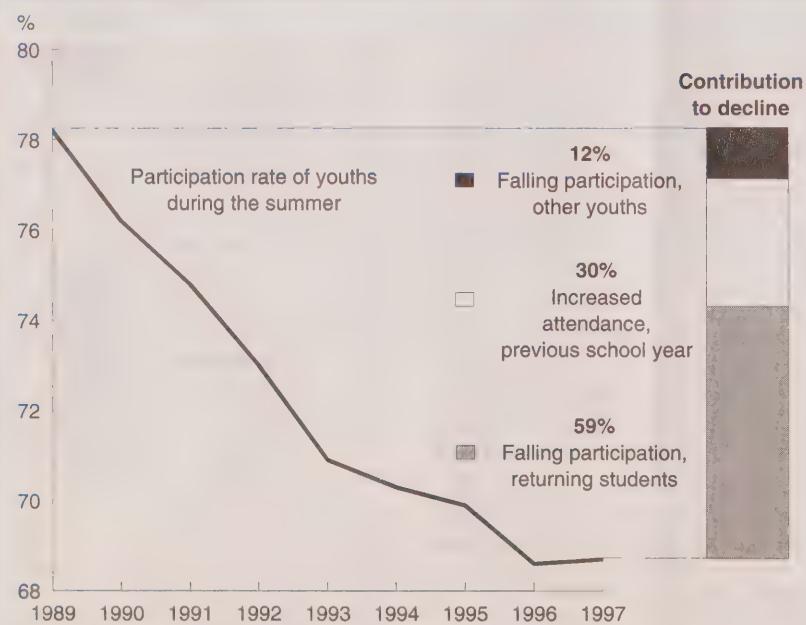
	1997 rates			Change from 1989			Contribution to decline		
	Labour force participation		Full-time school attendance	Labour force participation		Part-time and non-students	Labour force participation		Full-time school attendance
	Full-time school attendance	Full-time students		Full-time	Full-time		Full-time	Full-time	
	%				percentage points				%
Canada	58.2	37.7	85.1	10.5	-6.8	-2.3	51	38	11
Newfoundland	61.1	15.1	68.6	12.0	-0.7	-2.4	82	5	14
Prince Edward Island *	53.6	34.3	90.2	5.8	-2.8	7.0	...	...	...
Nova Scotia	57.8	35.2	83.1	8.3	-3.7	-1.2	61	31	9
New Brunswick	53.6	27.4	78.7	6.5	-1.9	-2.0	63	18	19
Quebec	60.6	31.4	83.1	14.1	-5.7	-2.2	63	28	9
Ontario	61.5	42.4	86.0	10.9	-9.6	-4.0	38	47	15
Manitoba	50.4	47.2	88.0	5.5	-0.4	-0.5	84	8	10
Saskatchewan	53.0	38.8	86.8	6.4	0.6	1.5	100	-	-
Alberta *	52.0	42.4	89.6	7.1	-1.7	1.9	...	...	...
British Columbia	53.4	36.1	85.1	10.1	-11.2	-5.0	36	43	20

Source: Labour Force Survey

Note: Data are eight-month averages (January to April, September to December).

* In these two provinces the participation rate for some groups of youths rose while that for others fell. This produces non-meaningful results.

Chart F Summer jobs have been relatively hard to find in the 1990s.



Source: Labour Force Survey

points between 1989 and 1997, accounting for 82% of the decline in labour force participation by young people. In Quebec, school attendance rates rose by 14 percentage points, the source of almost two-thirds of the drop in youth participation.

By contrast, large drops in the participation rates of full-time students contributed most to the overall decline in youth participation in both Ontario and British Columbia (11 and 10 percentage points, respectively).

Effect of earlier retirement

Persons aged 55 and over have been the second greatest contributor to the overall decline in the labour force participation rate in the 1990s. This group was also the source of the greatest difference between U.S. and Canadian rates in 1997, a gap that opened in the mid-1980s and has widened since.

Measuring discouragement

The Labour Force Survey measures discouragement directly through a series of explicit questions. Respondents to the survey who are not currently employed and are not looking for work are asked:

"Did you want a job last week? What was the main reason you did not look for work last week? Could you have worked in the last week if a suitable job had been offered?"

The following table presents a breakdown of the Canadian working-age population (15 and over) by labour force status, and then further subdivides those not in the labour force according to their responses.

Working-age population, 1997

	'000
Population 15+	23,687
Employed	13,941
Unemployed	1,414
Not in the labour force	8,333
Not able to work	654
May be able to work	7,678
Wanted a job if suitable work had been offered	458
Non-economic reasons for not looking	269
Illness	48
Personal/family reasons	64
School	93
No reason/other	64
Economic reasons for not looking	188
Discouraged, believed no work available	108
Waiting for recall	56
Waiting for replies	24

Those who wanted a job, and were available for work but did not look because they believed no suitable work was available are classified, in accordance with international standards, as **discouraged**. While not included in the official estimates of the labour force and unemployment, they are closely monitored, since they represent potential labour supply and provide a barometer of labour market conditions. Similarly, those who wanted a job and were available, but did not look because they were waiting for replies or recall from employers, while not discouraged, are also on the margins of the labour force and

are not active for economic reasons (Jones and Riddell, forthcoming).

If the shortfall between the "expected" and the actual participation rates in 1997 were the result of hidden unemployment, the estimate of those not active in the labour force for economic reasons should be over half a million. However, on average, only 188,000 persons were not in the labour force for economic reasons, and within this group, just 108,000 were discouraged workers.

The relative magnitude of discouragement can be looked at in two ways. Expressing discouragement as a percentage of the labour force reflects the potential effect of the discouraged on unemployment figures. On the other hand, using those not in the labour force as the denominator identifies the population at risk, since only this group can be considered as discouraged.

Expressed as a percentage of the labour force, discouragement is relatively low, at 0.7%. It is most prevalent for those aged 55 and over, and lowest for core-aged workers (25 to 54). This pattern also holds when the measure is broadened to include all those on the margins of the labour force because of economic reasons.

When the non-labour force (that is, the number of people not classified as employed or unemployed) is used as the denominator, the pattern changes. Since most 25 to 54 year-old men and many women in this age group have few alternatives to participating in the labour

force, those who are not active are more likely to be discouraged or marginally attached in some way than are older and younger groups.

Education greatly influences the discouraged-to-labour force ratio. At 3.1%, it is over six times greater for persons with no more than a Grade 8 education than for those with a postsecondary certificate or diploma (0.4%) or university degree (0.2%).

In relative terms, labour market discouragement tends to be greater in areas with chronically high unemployment rates, most notably Newfoundland. Rates are also above the national average in the other Atlantic provinces and Quebec, and below average in Ontario and the western provinces.

Discouraged workers by province, 1997

	'000	As % of labour force	
		Total	non-labour force
Canada	108	0.7	1.3
Nfld.	21	8.9	9.9
P.E.I.	1	0.8	1.7
N.S.	6	1.3	2.0
N.B.	6	1.5	2.3
Que.	31	0.9	1.4
Ont.	26	0.4	0.9
Man.	2	0.4	0.8
Sask.	3	0.5	1.0
Alta.	3	0.2	0.6
B.C.	9	0.5	0.8

Marginal labour force attachment, 1997

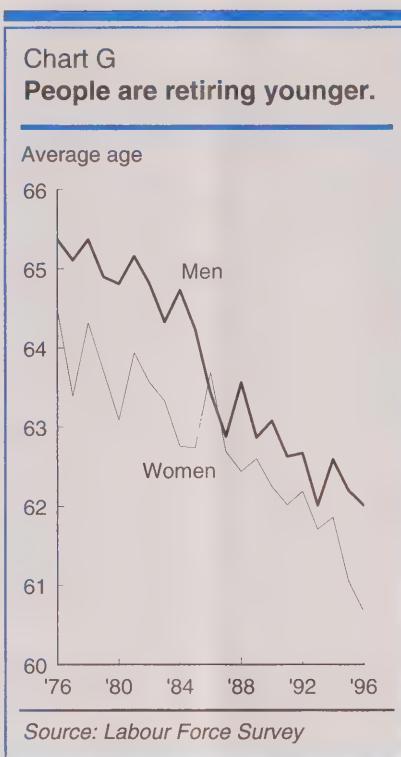
		Not in the labour force for economic reasons *			
		Total as % of		Discouraged as % of	
		Labour force	Non-labour force	Labour force	Non-labour force
				%	
15+	Both sexes	1.2	2.3	0.7	1.3
15-24	Men	1.5	2.6	0.9	1.5
	Women	1.3	1.8	0.8	1.1
25-54	Men	1.0	10.6	0.5	4.9
	Women	1.1	3.7	0.7	2.3
55+	Men	1.9	0.9	1.2	0.6
	Women	2.3	0.5	1.7	0.3

* Includes discouraged, and those waiting for replies or recall.

The labour force participation rate of men aged 55 to 64 has been on a long-term decline, falling from 77% in 1976 to 59% in 1995. (In 1996 and 1997, the rate actually edged up slightly for the first time in over 20 years.) In contrast to older men, older women have been increasingly likely to participate in the labour force: their participation rates have risen from 32% in 1976 to 36% in 1997.

The decline in men's participation in the 1970s and 1980s reflected the growing numbers who were retiring earlier, perhaps taking advantage of early retirement incentives (see *Retirement*). In the 1990s, the average age at retirement has continued to fall, although at a slower pace (Gower, 1997) (Chart G).

However, the continued decline in participation among older men has led to concern that this group may now face a greater risk of involuntary job loss than younger workers – in a



labour market that increasingly values postsecondary education, technological skill and flexibility.

So, how much of this decline is due to voluntary retirement, and how much is a reflection of discouragement following involuntary job loss? The data suggest that both factors have contributed.

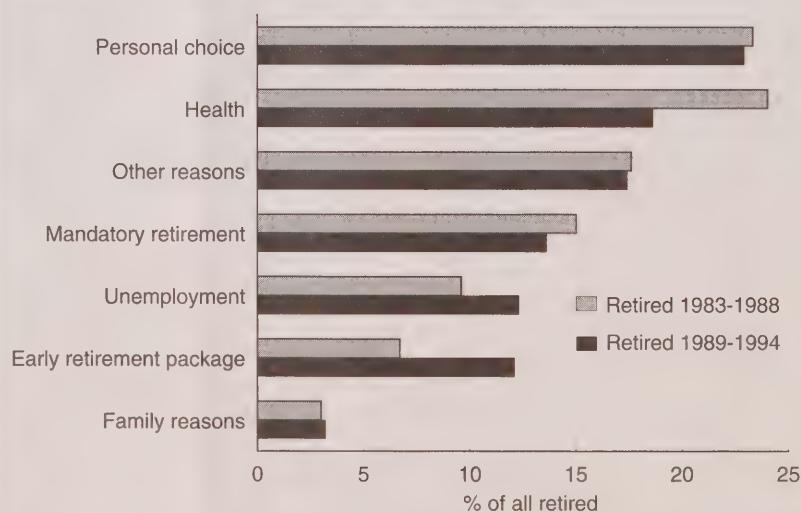
Between the late 1970s and early 1990s, the risk of permanent layoff changed very little for the overall working population (Picot, Lin and Pyper, 1997). But the risk actually increased slightly for older workers over this period. While least likely to experience an involuntary job loss in the late 1970s, older workers were more likely to be permanently laid off in the 1980s, and slightly more at risk than workers aged 35 to 54 by 1994. However, the increase has not been strong: the permanent layoff rate for older men rose from 6.9% in 1978 to 8.6% in 1994. For women, the increase was even smaller, from 3.9% to 4.5%.

Retirement

Reasons for retirement are complex and diverse, so the continued drop in the average age of retirement is not solely the result of forced exits from the labour force. In fact, the reasons for retirement, as measured by Statistics Canada's General Social Survey, changed only marginally between the expansion years of the 1980s and the recession-dominated years of the early 1990s. While the proportion of persons who retired because of early retirement incentives almost doubled, from 7% to 12%, the proportion reporting unemployment as their main reason for retirement rose only slightly, from 10% to 12%. Personal choice and health remained the leading reasons in the early 1990s.

Incentives may have spurred early retirement in the 1990s.

Reasons for retirement



While the risk of layoff has risen only slightly, some groups of older workers have been especially vulnerable: those with relatively low levels of education, and those in the higher unemployment areas of the Atlantic provinces and Quebec. Once laid off, older workers, especially those who lack postsecondary qualifications, have had a much harder time finding a replacement job than younger adults (Statistics Canada, 1998).

Job loss has affected older workers in different ways. For example, a considerable proportion who lost jobs in the 1990s were government workers, many of whom may have been eligible for early retirement packages that provided a bridge to their normal retirement benefits. Those who experienced job loss without such compensation have been at a disadvantage, at least until old enough to receive C/QPP benefits. In the interim, they have most likely faced serious barriers to re-employment.

Conclusion

The failure of the labour force participation rate to match or exceed 1989 levels has sparked a great deal of interest and debate. Many observers attribute the shortfall between the current participation rate and that of 1989 as an indicator of the extent of labour market discouragement. However, an examination of the age structure of the decline suggests that other structural forces such as education and early retirement have played an important role. These findings are further supported by the direct measure of discouragement from the LFS, which, at 108,000 in 1997, is a great deal lower than an estimate based on the difference between the current and pre-recession participation rates. □

■ Note

¹ Another study (Jennings, 1998) reached a similar conclusion.

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Looking for work

Lee Grenon

Over the past two decades, the unemployed have changed their approach to looking for work. Unemployed job seekers make greater use of job advertisements and personal networks, and less use of formal institutions such as public employment agencies and unions. As well, they are increasingly engaged in either a comprehensive job search involving four or more methods over a typical four-week period, or a restricted job search using just one method. These changes have been most pronounced among the long-term unemployed (see *Data source and definitions*).

Finding a job involves gathering information on jobs and employers, and offering to provide labour to an employer. Employers, employment agencies, friends or relatives, unions, and job advertisements are all potential sources of information. Tapping into these sources can be an active and formal exercise, or a passive and informal one. Despite the trend away from using institutions (Chart), the annual average number of methods used by unemployed job seekers over a typical four-week period has been relatively stable since 1977: between 1.9 and 2.1.

Direct contact most common

Contacting employers directly has, with few exceptions, remained the most common method of job search over the past 20 years (Table 1), regardless of job seekers' duration of unemployment, age, sex or educational attainment (Table 2).

But the longer the period of unemployment, the less common is direct contact with an employer. Some people may begin to experience job search "burnout" as their list of

Data source and definitions

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. It divides the working-age population into three mutually exclusive classifications — employed, unemployed, and not in the labour force — and provides descriptive and explanatory data on each of these categories.

Duration of unemployment refers to a continuous period of unemployment.

Unemployed job seekers are those who, during the reference week, were without work, had actively looked for work in the past four weeks, and were available for work. Not all of the unemployed are job seekers; those on temporary layoff, who had an expectation of recall and were available for work, and those who had a new job to start within four weeks from the reference week and were available for work, are not required

to look for work in order to be classified as unemployed.

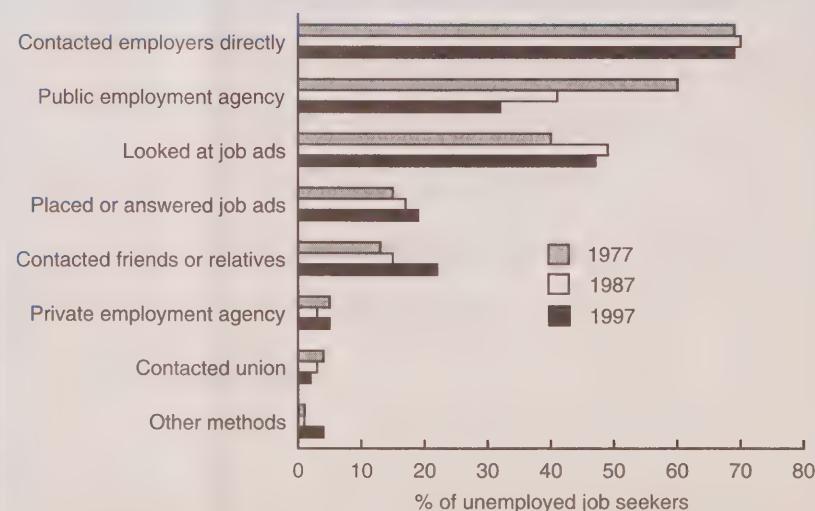
The **long-term unemployed** are persons continuously unemployed for more than a year.

Methods of job search

The LFS identifies eight methods of job search undertaken by unemployed persons in the previous four weeks. If more than one method was used, each one is recorded. Search methods are

- checked with public employment agency such as Canada Employment Centre;
- checked with private employment agency;
- checked with union;
- contacted employers directly;
- contacted friends or relatives;
- placed or answered advertisements;
- looked at advertisements; and
- other methods, such as checked with school placement offices.

Chart
Use of public employment agencies has declined sharply.



Source: Labour Force Survey

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Table 1
Job search methods used by unemployed job seekers

	1977	1982	1987	1992	1997
'000					
Job seekers	783	1,214	1,120	1,528	1,284
Employers directly	537	863	785	1,060	882
Public employment agency	470	604	459	582	408
Looked at job ads	313	560	550	893	608
Placed or answered job ads	114	175	187	294	241
Friends or relatives	99	158	173	301	279
Private employment agency	40	47	32	55	67
Union	31	41	30	44	24
Other methods	8	10	15	26	47
%					
Job seekers	100	100	100	100	100
Employers directly	69	71	70	69	69
Public employment agency	60	50	41	38	32
Looked at job ads	40	46	49	58	47
Placed or answered job ads	15	14	17	19	19
Friends or relatives	13	13	15	20	22
Private employment agency	5	4	3	4	5
Union	4	3	3	3	2
Other methods	1	1	1	2	4

Source: Labour Force Survey

Note: Numbers and percentages do not add to totals because of multiple responses.

potential employers shrinks (Canada, 1986). In 1997, some 71% of job seekers unemployed for 5 to 26 weeks contacted an employer at least once in the LFS four-week reference period, compared with 63% of those out of work for more than a year.

Over the years, direct contact with employers has become more common among men and younger unemployed job seekers (aged 15 to 24). In contrast, women are now less likely to contact employers directly.

(Most other job search methods precede direct contact with an employer. Because respondents may not be reporting some intermediate activities leading to this contact, these may be understated [Clemenson, 1987].)

Use of public agencies down

The most substantial change in job search patterns over the past 20 years has been the declining use of public employment agencies. In 1977, during a typical four-week period, 60% of all unemployed job seekers used a public employment agency. By 1987, this figure had dropped to 41%, and by 1997, to 32%. The use of such agencies dropped from the second most common job search activity in 1977 to the third most common in 1984. Since then, job seekers have been more likely to look at job advertisements than to contact a public employment agency.

This decline is striking, especially since many job seekers are legally required to contact a public employment agency. Those who wish to claim Employment Insurance (EI) benefits must register at a Canada Employment Centre. On the other hand,

the number of EI regular beneficiaries without earnings has declined steadily since the early 1990s. The drop in beneficiaries and in the use of public employment agencies has occurred during a period of employment growth and substantial change to employment services from all levels of government.¹ As well, not all unemployed job seekers are eligible for programs such as Employment Insurance, and not all EI claimants are necessarily unemployed job seekers.²

During the first year of unemployment, contact with a public employment agency becomes more common as the duration of unemployment increases. However, as with other formal job search methods, use of these agencies declines after a year of continuous unemployment. Young people (aged 15 to 24) in particular have moved away from this source, from 62% in 1977 to 26% in 1997. Men have been more likely than women to contact a public agency, although this difference has diminished over time.

Help wanted

For many years employers have publicized their hiring intentions in newspapers and other publications. This practice now extends to the Internet.

The percentage of unemployed job seekers who looked at job advertisements in a four-week period rose until recently. In 1977, 40% did so. The rate increased steadily for more than a decade, reaching 59% in 1993 before dropping back to 47% in 1997.

Not surprisingly, this method becomes more common as other methods are exhausted, and as the job seeker approaches "burnout." In fact, the incidence of passive job search (only looking at job notices) has increased steadily over the past 20 years, from 3% in 1977 to 8% in 1997.³ This growth has been most evident among the long-term unemployed (increasing from 4% to 12%).

**Table 2
Use of job search methods by selected characteristics, 1997**

	Employers directly	Public employment agency	Looked at job ads	Placed or answered job ads	Friends or relatives	Private employment agency	Union	Other methods
%								
Both sexes	69	32	47	19	22	5	2	4
Men	71	34	45	18	22	5	3	3
Women	66	29	50	20	21	5	-	4
Age								
15 to 24	75	26	43	16	21	3	-	3
25 to 34	68	36	50	21	23	6	2	4
35 to 44	67	35	49	19	22	6	2	4
45 to 54	65	32	49	19	22	6	3	4
55 to 64	60	29	47	17	20	6	4	3
65 and over	62	--	48	--	--	--	-	--
Education								
Less than Grade 9	69	28	37	9	18	3	2	2
Some secondary	70	28	45	15	22	3	1	3
High school graduation	68	34	51	21	23	6	1	3
Some postsecondary	71	33	49	20	22	6	--	5
Postsecondary certificate or diploma	68	35	49	20	21	6	4	4
University degree	67	31	49	26	25	10	--	8
Duration of unemployment								
4 weeks or less	69	28	39	16	18	5	2	3
5 to 13 weeks	71	33	49	20	22	5	2	4
14 to 26 weeks	71	34	51	21	24	6	3	4
27 to 52 weeks	67	35	53	20	23	6	2	4
53 weeks or more	63	32	54	18	23	4	1	4

Source: Labour Force Survey

Note: Percentages do not add to 100 because of multiple responses.

Women are more likely than men to consult job advertisements. This could be because some jobs sought by women tend to be advertised more than those traditionally sought by men. As well, this approach may be more convenient for women with family responsibilities (Clemenson, 1987).

Job seekers with limited educational attainment (less than Grade 9) are the least likely to consult job advertisements. This may be partly a consequence of lower literacy skills, which are closely related to educational attainment (Statistics Canada, 1996). It may also reflect the types of job sought by this group.

Skills for hire

Job advertisements can be used both to gather information and to declare one's availability for work.⁴ Offering to provide labour by placing or answering an advertisement has become more common in the 1990s.⁵ The proportion of job seekers who did so over a four-week period increased from 15% in 1977 to 19% in 1997. This practice was more common among women than men, and more likely among people with at least some postsecondary education. However, in contrast to the practice of looking at advertisements, the placing or answering of such notices actually declined among the long-term unemployed.

Since 1977, for every 100 job seekers who have looked at advertisements, between 31 and 40 have placed or answered one. This ratio reached its highest level to date in 1997.

Friends and relatives play a role

Enlisting the help of friends and family doubled in frequency between 1977 and 1994, from 13% to 26%. Despite a decrease in this method to 22% in 1997, friends and family have continued to be a major source of information and prospects for many job seekers.

Over the past 20 years, the pattern of using personal contacts has changed. In 1977, the rate declined after six months of unemployment. In 1997, the likelihood of using this approach increased during the first six months of unemployment, and thereafter remained stable. The change may reflect the growing emphasis placed on networking. This job search method is used more commonly by university graduates and those aged 25 to 34.

Use of private agencies increases with education

The declining use of public employment agencies has not led to an increased use of private employment agencies. The latter has remained relatively low since 1977 (some 3% to 5% of job seekers). The proportion declines after a year of continuous unemployment.

Contact with private agencies increases with educational attainment. Among unemployed job seekers, 10% of university graduates used a private employment agency, compared with 3% of those who had just some high school. Although some private employment agencies offer placements for manual and semi- or low-skilled work (International Labour Conference, 1994), most provide services to job seekers with technical or professional expertise requiring postsecondary education.

Do unions help?

Most unions do not offer a job placement service. So, even though one in three Canadian workers is a union member, only a small number of job seekers have traditionally sought help from this source. Over the past 20 years, the percentage of unemployed job seekers who approached a union for help finding work has dropped from 4% to 2%. Workers in occupations such as construction and processing have been among the few served in this manner.

The number of job seekers served by unions fluctuates with the business cycle of each industry. People who contacted a union during a typical four-week search period reached 63,000 in 1983, dipping and then rising to 45,000 by 1993.

Contacting a union is almost solely an activity of men, reflecting their continuing predominance in trade, craft and manual occupations. This approach is also more common among older workers (aged 55 to 64), very likely because they enjoy seniority privileges. Job seekers with a postsecondary certificate or diploma, such as a trade certificate, also make more use of unions.

How many methods are used?

Overall, the number of job search methods used has been remarkably stable, despite changing patterns over the past two decades. In a typical four-week period, unemployed job seekers used an average of two job search methods.

The overall stability in the average masks the increasing percentage of job seekers using either only one method over a four-week period, or using four or more methods. The former increased from 36% in 1977 to 45% in 1997, and the latter from 10% to 12%. The percentage of single-method job searches that were passive (looking at notices only) doubled from 8% in 1977 to 17% in 1997.

Summary

Job seekers are relying less on organizations such as public employment agencies and unions and more on job advertisements and networking with friends and family. A growing proportion are using just one search method in a typical four-week period; others, in contrast, are employing many methods.

Several trends may be contributing to the changing patterns. The growing incidence of long-term unemployment has led to an overall increase in the use of advertisements. Changes to services and benefits provided by public employment agencies may be related to the declining use of organizations. And greater emphasis on networking in the job search literature may be linked to the increased use of family and friends.

Overall, the evolving patterns may reflect broader changes in the labour force over the past two decades, such as the increased participation of women, persons with higher educational attainment, and older age groups. As well, these shifts may be related to a higher proportion of managerial, administrative, professional and technical occupations. □

Notes

1 For further information on changes to the Employment Insurance program and Canada Employment Centres see Human Resources Development Canada (1995).

2 The LFS does not identify individual claimants of EI. As well, EI beneficiaries are not necessarily unemployed as defined by the LFS. A Statistics Canada study illustrates the statistical and conceptual differences between these two sources (Lévesque, 1989).

3 Passive job seekers (that is, those who only looked at job advertisements) are classified as unemployed in Canada, but as not in the labour force in the United States. This difference affects the number of unemployed, particularly the number of long-term unemployed. For further information on the effect of passive job search on measures of unemployment see Macredie (1997).

4 Information on using job advertisements is categorized into looking at, and placing or answering an advertisement.

5 Placing and answering notices are categorized together, since both are methods of offering labour, and because the number of persons placing job advertisements is relatively small.

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Retirement patterns of working couples

Dave Gower

Retirement trends have changed in the past couple of decades. The average Canadian now retires at age 62, compared with 65 in the 1970s. Behind these averages lies a more complex picture, however. For both men and women a much higher percentage of workers are retiring in their fifties, while a substantial proportion are still working well past age 65.

For working couples, one partner's decision to retire often depends on the other's situation. One person may postpone retirement until the other is ready to do so. Alternatively, one spouse may be able to leave work if the other continues to bring home a paycheque.

A few U.S. studies have examined the relationship between women's retirement patterns and their family and personal situations. Generally, women tend to delay their retirement while their husband is working, or when their own earning potential is strong. In the case of men, studies on retirement patterns pay little or no attention to the spouse's status because it is not seen as a major influence on their decision.¹ Rather, age, work history and pension entitlement are viewed as key factors.

A restricted subset

Retirement is not a simple concept to identify and measure. Some people come to the end of a lengthy career with one employer and retire. Some simply leave employment temporarily, while others transfer to part-time or intermittent work.

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Many measurements

In this article "couples" refers to legally married persons or those living common law.

Most retirement studies that have taken family status into account have focused on the behaviour of individuals, and have treated the family situation as an individual characteristic. For example, retirees are classified as married, spouse working; married, spouse not working; or not married. This approach has the advantage of simplicity, but it does not capture partners' combined profiles.

Trying to measure joint behaviour is more complex. The number of possible combinations increases consider-

ably. The following definitions describe the types of measurement used in this article.

Age of retirement relates to the individual, meaning that two ages are assigned to each couple.

Age difference refers to the number of years between the spouses' ages.

Difference in retirement dates is the number of months separating the retirements of the spouses.

Retirement sequence means the combined retirement events experienced by a couple (wife retires first, both retire together, or husband retires first).

Retirement patterns vary

In one-third of couples (103,000) surveyed in April 1997, spouses had retired "together," that is, less than a year apart. Partners in about one-third (38,000) of these had left within the same month (Table 1). One U.S. study found that older couples had a greater tendency to retire together (Henratta and O'Rand, 1983), although the Canadian data offer no evidence of this. Those who retired together did so at ages similar to those of all retiring couples: 60.7 versus 60.9 for husbands, and 58.5 versus 58.4 for wives.

Two-thirds of couples retired a year or more apart. Among these, wives were somewhat more likely to stop working first. In 37% of couples (116,000) wives retired at least one year ahead of their husbands. In 30% of couples (93,000) the husband preceded the wife. In 47,000 couples (15%) wives retired five or more years ahead of husbands. In 33,000 couples (11%) husbands left work five or more years ahead of wives.

The data set: A backward look

This study considers couples in which both partners were aged 55 to 74,² had not worked in the past year, and were not currently looking for work. The 1997 Survey of Consumer Finances provides income data for 1996.

Because of these age cut-offs, the sample is biased against couples whose ages are very different. (The greater the age difference, the smaller the chance of both partners' falling within the specified range.) Therefore, these data should not be taken as a full measure of the distribution of age among couples.

As well, couples are measured at the date of the survey rather than at the date of retirement. Some people may have married after they retired, and well after they made their decision to do so.

In 1995, about 2,800 marriages took place in which both the bride and groom were aged 55 to 74 (Statistics Canada, 1996). With 2 million people in this age range, however, this represents a marriage rate of well under 1%, and should not distort the analysis.

The month and year when last worked is taken as the date of retirement. This may miss possible future work episodes for a few people, but such employment tends to be short-term or part-time (Gower, 1998).

The methodology chosen for this study produces results that differ from those noted in an earlier *Perspectives* article (Gower, 1997). In that study, the average retirement age was 62.4 for men

and 61.8 for women, compared with 60.9 and 58.4 in the current analysis.

At least two possible explanations exist for this difference. First, this sample is biased against people who retire late. (The closer these people are to 75, the less likely their chance of being captured by the survey.) Second, the earlier study was able to select people who gave "retirement" as the reason for leaving their last job, which tended to limit the data set to people with longer careers, who often retire later.

For technical reasons, the data set in the earlier article, though more reliable as a source of information on retirement age, could not capture the retirement events of couples that this one provides.

years younger than those who retired later than their spouses (62.2).

Age difference a major factor

Among all retired working couples, wives were an average two years younger than their husbands. In spite

of this, wives tended to retire first. Their average retirement age was two-and-a-half years lower than husbands' (58.4 versus 60.9).

Among the 116,000 couples in which the wife retired first, wives were an average six years younger at retirement than husbands (56.4 versus 62.2). This was the result of two factors: wives left work an average five years earlier, and they were an average one year younger than their mates (Table 2).

Among the 93,000 couples in which the husband retired first, husbands' average retirement age was slightly lower than wives', but by a much smaller margin (59.6 versus 60.7). In such cases, husbands retired almost four-and-a-half years sooner than their wives, but were an average three years older.

How does age difference affect retirement sequence?

Simple averages hide many subgroups of interest. For example, do couples in which the wife is older have distinctive retirement patterns? At the

Table 1
Retirement sequence and average retirement age of working couples

	'000	%	Average retirement age	
			Husband	Wife
Total	312	100	60.9	58.4
Wife retired first (1 year or more)	116	37	62.2	56.4
60 months or more before husband	47	15	63.0	54.6
24 to 59 months before husband	47	15	61.7	57.4
12 to 23 months before husband	22	7	61.5	58.1
Retired together	103	33	60.7	58.5
Wife 1 to 11 months before husband	35	11	60.5	58.3
Same month	38	12	61.1	58.9
Husband 1 to 11 months before wife	31	10	60.4	58.3
Husband retired first (1 year or more)	93	30	59.6	60.7
12 to 23 months before wife	21	7	60.3	58.9
24 to 59 months before wife	39	12	60.2	60.6
60 months or more before wife	33	11	58.4	62.0

Source: Survey of Consumer Finances, April 1997

**Table 2
Difference in retirement dates and ages of working couples, by retirement sequence**

	Average difference in retirement dates	Average age difference years
Total	0.5	2.0
Wife retired first (1 year or more)	4.9	0.9
60 months or more before husband	8.1	0.3
24 to 59 months before husband	3.3	1.0
12 to 23 months before husband	1.3	2.0
Retired together	-	2.1
Wife 1 to 11 months before husband	0.4	1.8
Same month	-	2.2
Husband 1 to 11 months before wife	0.4	2.5
Husband retired first (1 year or more)	4.4	3.2
12 to 23 months before wife	1.3	2.8
24 to 59 months before wife	3.2	2.8
60 months or more before wife	7.6	4.0

Source: Survey of Consumer Finances, April 1997

other extreme, when the husband is much older, do decisions to retire differ radically from those of other couples?

Some 65,000 wives were older than their husbands at the time of the survey, and of these, 55% had retired first. This compares with 38% of the 44,000 wives who were the same age as their husbands. Of the 204,000 retired couples in which the husband was older, only 31% of wives had retired first, a proportion that diminished as the age difference grew. It fell to only 24% when the age difference was five years or more (Table 3).

The propensity of spouses to retire within a year of each other varied only moderately with age difference. The likelihood was lowest when the wife was older (28%), or when the husband was five or more years older than his wife (30%). Retiring together was most common when the husband was one to two years older.

Wives wait longer

If the husband retires first, how soon does his wife join him? How does this compare with cases in which the wife retires first?

**Table 3
Retirement sequence of working couples, by age difference**

	Total	Retirement sequence		
		Wife first	Together	Husband first
'000				
Total	312	116	103	93
Wife older	65	36	18	11
Same age	44	16	13	14
Husband older	204	63	72	69
1 to 2 years	73	28	28	17
3 to 4 years	64	19	24	21
5 years or more	67	16	20	31
%				
Total	100	37	33	30
Wife older	100	55	28	16
Same age	100	38	31	31
Husband older	100	31	35	34
1 to 2 years	100	38	38	24
3 to 4 years	100	30	37	33
5 years or more	100	24	30	46

Source: Survey of Consumer Finances, April 1997

**Table 4
Average difference in
retirement dates**

	Retirement sequence	
	Wife first	Husband first
years		
Wife older	5.3	4.3
Same age	5.5	3.5
Husband older	4.5	4.6
1 to 2 years	4.7	3.8
3 to 4 years	5.0	4.7
5 years or more	3.5	4.8

Source: Survey of Consumer Finances, April 1997

Among the 16,000 same-age couples in which the wife retired first, wives waited an average five-and-a-half years for their partners to join them. In contrast, among the 14,000 cases in which the husband retired first, wives retired only three-and-a-half years later (Table 4). This suggests that, as in the United States, wives are more likely than husbands to base their retirement decision on their spouses' employment situation.

Sequence not tied to income or education

Who is most able to take early retirement? According to a related study published last year, individuals with higher education often retire at relatively young ages (Gower, 1997). Can the same be seen in the retirement patterns of couples?

The association is not clear cut. In couples with lower educational attainment and low income, wives are somewhat more likely to leave first (Table 5). In other income or education groups, however, there seems to be less correlation. This does not mean that such measures are completely unrelated to family retirement decisions, merely that other factors may be more dominant.

Conclusion

Wives appear more likely than husbands to take their spouses' career and retirement into account when making their own decision to retire.

Economic status and retirement patterns of couples are not strongly linked. It is quite possible, however, that a more in-depth study could reveal significant patterns.

The population examined here varies in some important ways from the generation to follow. Women now approaching retirement age are more likely to have had long-term careers than those of a generation ago. This creates sources of post-retirement income not available to their predecessors. Recent strong growth in equity values may also allow couples retiring in the next few years a freedom of choice not enjoyed by this study group. Changes in family decision-making processes may also change the dynamics. □

Notes

1 See, for example, Henratta and O'Rand (1983).

2 Choosing a cutoff age of 55 offers a reasonable guarantee that the person will stay out of the workforce. Age 74 is used as the upper limit to protect against natural attrition of the sample. This age limit does miss many retired people over age 74, and biases the sample against those who work later in life. For these and other reasons the average retirement dates in this article may differ from those published in other studies (see *The data set: A backward look*).

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Table 5
Retirement sequence of working couples, by education and post-retirement income

	'000		Wife first	To- gether	Hus- band first
	Total	312			
Total		100	37	33	30
Education of wife				%	
Less than Grade 9	77	100	45	35	20
Some secondary	63	100	31	33	36
High school graduation / some postsecondary	82	100	38	30	32
Postsecondary certificate or diploma / university degree	90	100	34	34	32
Education of husband					
Less than Grade 9	82	100	42	32	26
Some secondary	55	100	29	40	31
High school graduation / some postsecondary	58	100	34	31	35
Postsecondary certificate or diploma / university degree	118	100	39	32	30
Combined income					
Under \$25,000	107	100	42	34	24
\$25,000 to \$39,999	93	100	35	30	35
\$40,000 and over	112	100	34	35	31

Source: Survey of Consumer Finances, April 1997

Home-based entrepreneurs

Dominique Pérusse

More and more Canadians are going into business for themselves. Fully two-thirds of employment growth since the beginning of the 1990s is attributable to persons who have created their own business. According to the Labour Force Survey, the self-employed grew from 10% of employment in 1976 to 14% in 1995. In November 1995, more than half (1,126,000) operated their business from home (see *Data sources and definitions*). (In contrast, just 9% of employees worked some of their hours at home.¹)

Pros and cons

A home office presents both advantages and disadvantages to someone launching a business (Codère, 1995). Home-based entrepreneurs incur lower fixed costs to start up a business, which decreases financial risk. The home can also be an ideal choice for those who often work outside the office. As is the case for employees working from home, home-based entrepreneurs are able to reduce the time and expense of commuting, and may save money on clothing and meals. The time saved and the flexibility in work schedule often make it easier to balance work and family life. On the other hand, working at home can create a sense of personal and professional isolation. In response, some home-based entrepreneurs have formed associations to maintain visibility and deal with common concerns.

Who operates home-based businesses?

The 1995 Survey of Work Arrangements (SWA) found that 60% of self-employed workers aged 55 or over

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Data sources and definitions

The **Labour Force Survey**, a monthly survey involving about 55,000 households, yields statistics on employment and unemployment.

The **Survey of Work Arrangements (SWA)**, sponsored by Human Resources Development Canada, was conducted in November 1995 as a supplement to the Labour Force Survey. It asked self-employed workers whether they operated their business from home. (Employees were asked whether they performed part or all of their work at home.)

Most SWA questions concerned the worker's **main job**, that is, the one to which most hours were devoted during the week of the survey, in cases in which a respondent held more than one job. In addition, all workers (paid or self-employed) who held more than one job, and who were self-employed in the second, were asked if this business was conducted from home.

were based at home, compared with 52% of those 25 to 54.

Of those aged 25 to 44, home was the place of work for 58% of women and 49% of men. Women in this age group are more likely to be raising children and hence may prefer to work from home.

Family status can make it possible – or necessary – to work at home. Self-employed single parents were most likely to operate a business at home in November 1995, fathers more so than mothers (69% versus 52%) (Table 1). Some 54% of business owners with a working spouse (dual-earner families) were home-based. A wide gap separated men and women: 51% of men and 61% of women were home-based, although the latter rose to 77% when a preschool-aged child was present.

The **Home-based Business Survey**, conducted in April 1997, covered 300 Ontario companies that began operations in the first quarter of 1996.

The **self-employed** are working owners of a business, farm or professional practice, incorporated or not, with or without paid help. Also included are those who do not have a business (for example, babysitters and newspaper carriers) and persons who work without pay on a farm or in a business or professional practice owned and operated by another family member living in the same dwelling.

Home-based self-employed workers include, among others, entrepreneurs in trucking or construction who use their home as a place of business while working outside it, as well as those (such as family daycare operators) who work only at home.

Self-employed workers with a university degree were less likely to operate their business from home. Just 40% did so, compared with 60% of those with only some high school or less. (In contrast, among employees, more university graduates worked at home.)

Some jobs more likely to be home-based

In November 1995, one-third of the self-employed worked in goods-producing industries, primarily in agriculture and construction, and they generally operated their businesses from home. Not surprisingly, some 91% of self-employed agricultural workers and 68% of construction entrepreneurs were home-based (Table 2).

Table 1
Self-employed workers based at home, by sex and family type

	Both sexes	Men	Women
		%	
All self-employed workers	53	51	57
Youngest child under 6	59	50	77
Youngest child between 6 and 15	54	50	60
No children under 16	52	53	50
In a couple	53	50	60
Youngest child under 6	59	50	77
Youngest child between 6 and 15	52	47	62
No children under 16	52	52	52
Single-earner couples	47	46	52
Youngest child under 6	53	51	--
Youngest child between 6 and 15	41	38	--
No children under 16	47	47	47
Dual-earner couples	54	51	61
Youngest child under 6	60	48	77
Youngest child between 6 and 15	54	49	62
No children under 16	53	53	53
Lone parents	59	69	52
Unattached individuals	54	53	57

Source: Survey of Work Arrangements, November 1995

Services accounted for the other two-thirds of self-employed workers; 44% of these businesses were operated from home. Trade accounted for 12% of all home-based businesses; business services 11%; and personal services 9%. While they were fewer in number, self-employed workers in education, and membership organization and other services were more likely to use their home as a workplace.

Some occupations do not seem to lend themselves as readily to home-based work. Unlike workers in farming, horticulture and animal breeding, of whom 91% called home their place of work, only one-third of directors, managers and administrators operated their business from home. (By definition, they often had more than a few employees, thus making a home office less feasible.) As well, only 38% of those in sales operated a business from home, while about half of clerical and service workers did so.

With or without employees?

Entrepreneurs with one or no employees were more likely than those who had several, to operate their business from home. In fact, 82% of those who operated a business in their home had no employees (Table 2), compared with 48% of those who were based outside the home. Self-employed workers in services (86%) and agriculture (82%) were less likely to have employees; by contrast, only 64% of those in manufacturing had no employees.

Main reason

Being able to work at home is apparently not the main reason for becoming self-employed. According to the 1995 SWA, only one home-based business owner in 10 said the main reason was a desire to work at home. Home-based business owners with at least one child under six were more likely to start a business for this reason (18%).

The SWA did not ask home-based self-employed workers why they operated their business from home. The findings of another survey are more revealing. The Home-based Business Survey asked Ontario entrepreneurs who had recently started their business why they had chosen to operate from home. Half said they had done so to reduce business operating costs (Taylor, 1997).

Self-employed workers with more than one job were more likely than others to work at home in either their main or second job. Among these 128,000 multiple jobholders, 66% were home-based in their main job. In addition, among the 30,000 self-employed workers whose primary job was based at home and who also had a second business, 86% ran that business from home.

Operating a business from home is no easy matter. Although home-based entrepreneurs put in fewer hours per week on average than other self-employed workers, one-quarter worked between 40 and 49 hours per week and one-third put in 50 hours or more (Table 3). They were also more likely to have work weeks that varied in length, or work weeks of six or seven days. One home-based worker in three worked both Saturday and Sunday, compared with one in five who worked away from home.

More prevalent in rural areas

For several reasons business owners who live in urban areas are less likely than those in rural areas to operate their business from home. In the city, homes may be too small to accommodate an office, commercial space for lease is easier to find, and zoning regulations regarding mixed land use are stricter. So, while less than half of business owners (46%) who lived in urban areas operated their business from home in November 1995, some 72% in rural or remote areas did so. Even excluding farmers, the gap was still significant: 44% of urban entrepreneurs were based at home,

Table 2
Self-employed workers based at home, by industry and occupation

	Self-employed				
			Work at home		
	Total	Number	Distribution	Proportion	
	'000	%	'000	%	%
All industries	2,139	100	1,126	100	53
Goods-producing *	684	32	482	43	71
Agriculture	284	13	257	23	91
Other primary	50	2	32	3	63
Manufacturing	119	6	37	3	31
Construction	229	11	157	14	68
Service-producing	1,455	68	643	57	44
Transportation, storage and communication	94	4	45	4	48
Trade	402	19	135	12	34
Finance, insurance and real estate	112	5	54	5	48
Business services	243	11	129	11	53
Educational services	36	2	25	2	71
Health and social services	116	5	43	4	37
Accommodation, food and beverage services	92	4	18	2	20
Recreational services	53	2	24	2	45
Personal services	199	9	98	9	49
Miscellaneous services **	109	5	72	6	66
All occupations	2,139	100	1,126	100	53
Directors, managers and administrators	217	10	77	7	35
Professionals †	318	15	148	13	46
Natural sciences, engineering and mathematics	55	3	35	3	63
Teaching	44	2	32	3	72
Artistic, literary and recreational	101	5	62	5	61
Clerical	62	3	30	3	49
Sales	393	18	148	13	38
Service	356	17	180	16	51
Primary	337	16	293	26	87
Farming, horticulture and animal breeding	292	14	265	24	91
Processing, machining and fabricating	153	7	61	5	40
Construction trades; transport equipment operating; material handling; and other skilled workers	302	14	189	17	62
Number of employees	2,091	100	1,123	100	54
None ‡‡	1,381	66	917	82	66
1	191	9	98	9	51
2 to 4	268	13	77	7	29
5 or more	251	12	32	3	13

Source: Survey of Work Arrangements, November 1995

* Includes utilities.

** Membership organization and other services.

† Includes social sciences, religion, medicine and health.

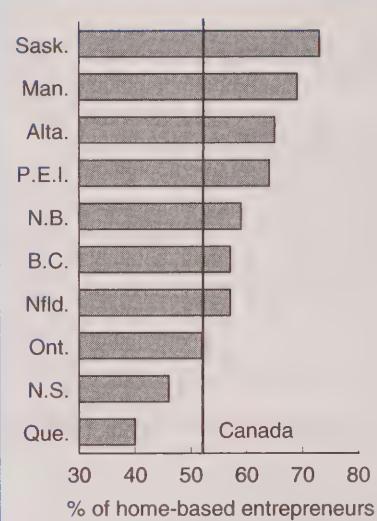
‡‡ Refers to own-account workers or employers with no employees at the time of the survey.

Table 3
Self-employed workers' place of business, by work hours and schedule

	Self-employed		
	Total	At home	Elsewhere
%			
Usual work hours	100	100	100
Part-time			
1 to 19	12	16	8
20 to 29	7	10	4
Full-time			
30 to 39	15	17	13
40 to 49	28	25	33
50 or more	37	32	43
Schedule	100	100	100
Variable days	18	22	12
Regular days	82	78	88
1 to 4 per week	6	5	7
5 per week	36	30	43
6 or 7 per week	41	43	38
Weekdays only	38	32	44
Monday to Friday	34	29	40
Some weekdays	4	3	4
Including weekends/weekends only	45	46	44
Saturday but not Sunday	16	11	23
Saturday and Sunday	28	34	21

Source: Survey of Work Arrangements, November 1995

Chart
Many entrepreneurs are home-based on the Prairies and in Prince Edward Island.



Source: Survey of Work Arrangements, November 1995

compared with 59% of those in rural or remote areas. This also explains why business owners in the Prairie provinces and Prince Edward Island were more often home-based (Chart).

Summary

Self-employed workers are a growing segment of the workforce. More than half of these workers have chosen to run a business from home, especially if they are older or have young children.

In November 1995, self-employed single parents were more likely to have a home-based business, especially if the parent was a father. And women in dual-earner families were more likely to operate a business from home, particularly if they had preschool-aged children.

Home-based entrepreneurship was lower among university graduates than among those with less education.

One-third of the self-employed worked in goods-producing industries (mainly in agriculture and construction) and tended to run their business from home. The other two-thirds were involved in service-producing industries. Of these, workers who ran a home-based business were concentrated in trade, business services and personal services. Most operated their business without the help of an employee. □

Note

1 Employees working at home are discussed in a previous *Perspectives* article (Pérusse, 1998).

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Pérusse, D. "Working at home." *Perspectives on Labour and Income* (Statistics Canada, Catalogue no. 75-001-XPE) 10, no. 2 (Summer 1998): 16-23.

Taylor, S. "Home-based business survey: Who is running the show?" Paper presented at Economic Growth and Employment - Conference 1997, sponsored by Statistics Canada, September 29-30, 1997.

What's new?

■ JUST RELEASED

■ Family income after tax, 1996

After-tax family income remained essentially unchanged in 1996 for a second consecutive year, after adjusting for inflation (as measured by changes in the Consumer Price Index). Apart from a modest increase in 1994, average income declined throughout the early 1990s.

Average after-tax family income in 1996 (based on estimates derived from the annual Survey of Consumer Finances) was \$45,000, about 5% less than in 1989, the peak year for income. Transfer payments averaged \$6,600, down 7% from the peak in 1993, while income tax was \$11,600, 1% above the previous peak in 1990.

The combination of personal income taxes and government transfer payments narrows the after-tax income gap between those at the top and those at the bottom of the income scale. Before taxes and transfers, families in the highest quintile (the top 20%) had \$22 for every \$1 received by those in the lowest. After taxes and transfers, the gap was reduced to \$5 for every \$1. Although the pre-transfer income ratio has grown substantially since 1980, the after-tax and transfer ratio has remained stable.

Income After Tax, Distributions by Size in Canada, 1996 (Catalogue no. 13-210-XPB, \$31) presents statistics for families of two or more persons, for unattached individuals, for all units (families and unattached individuals combined) and for persons with income. Custom tabulations of the data are also available. To order, or for further information on this release, contact Client Services, Income Statistics Division at (613) 951-7355; 1 888 297-7355; fax (613) 951-3012; e-mail: income@statcan.ca. □

■ Latest news for market researchers

The 1998 edition of the *Market Research Handbook* (Catalogue no. 63-224-XPB, \$125) is now available. Since 1975, this handbook has provided socioeconomic information reflecting key characteristics of local and national markets in Canada.

The 1998 edition contains the latest data from the 1996 Census and a wide range of other surveys.

Features include a user's guide, annotated charts, helplines for each of the data sources, and references to CANSIM (Statistics Canada's Canadian Socio-economic Information Management System, accessible online at <http://www.statcan.ca>).

To order the *Market Research Handbook* contact your nearest Statistics Canada Regional Reference Centre or call 1 800 700-1033; fax (613) 951-1584 or 1 800 889-9734; e-mail: order@statcan.ca. For general information about this publication, contact Jenny Grenier at (613) 951-1020; fax (613) 951-1572; e-mail: grenjen@statcan.ca. □

■ Labour turnover, 1978 to 1995

Worker turnover continues to be high. Roughly one in five workers separates from his or her company each year.

The overall rate at which workers permanently separate from their employers (including quits, layoffs and other separations) has been generally stable since 1978, although it tends to fall in recessions, as quits drop off more than permanent layoffs increase.

Quit and layoff rates have varied considerably by industry. Goods-producing industries generally have had higher temporary layoff rates than service industries. Over the period covered (1978 to 1995), permanent layoff rates were highest in primary and construction industries, while quit rates were highest in low-wage consumer services.

Worker turnover, especially permanent layoffs, was higher in small firms. The permanent layoff rate in large firms was one-quarter that of small firms in 1994. However, the hiring rate was almost three times higher in small firms than year.

Although affected by cyclical variations in the economy, permanent layoffs remained relatively high in both recessions and expansions. They were also unrelated to an industry's overall job creation.

Permanent Layoffs, Quits and Hirings in the Canadian Economy, 1978 to 1995 (Catalogue no. 71-539-XPB, \$35; or 71-539-XIB, \$26) is now available. To order this publication, contact your nearest Statistics Canada Regional Reference Centre or call 1 800 700-1033; fax (613) 951-1584 or 1 800 889-9734; e-mail: order@statcan.ca. For further information,

contact Richard Dupuy at (613) 951-361; e-mail: dupuy@statcan.ca. or Garnett Picot, Business and Labour Market Analysis Division, at (613) 951-8214; e-mail: picogar@statcan.ca. □

■ Latest on the labour force

The sixth issue of *Labour Force Update* (Catalogue no. 71-005-XPB, \$29) looks at employee wages. Following are highlights:

- In 1997, Canadian employees earned, on average, \$15.60 per hour. Women earned \$13.93 and men, \$17.10. About 61% of employees were paid on an hourly basis.
- With an average weekly wage of \$614 in 1997, employees in British Columbia tended to make more than workers in other parts of the country. At \$605, Ontario was the only other province to exceed the national average (\$574). Wages were lowest in Prince Edward Island (\$441) and relatively low in the other three Atlantic provinces.
- In the first quarter of 1998, 545,000 Canadian workers, or 5% of the total, worked at or below the minimum wage. More than half (58% or 316,000) of those employees were youths (aged 15 to 24). Among 25 to 54 year-olds, two-thirds of minimum wage workers were women.

For additional information on this publication, contact Geoff Bowlby at (613) 951-3325; e-mail: bowlgeo@statcan.ca or Martin Tabi at (613) 951-3010; e-mail: tabimar@statcan.ca; fax: (613) 951-2869. □

■ New report on small business

The latest issue of Western Economic Diversification's *Western Canada Small Business Overview* is now available on its website. This chart package offers information on job numbers and many other key performance indicators on western small business. It also contains an overview of the services offered by the Western Canada Business Service Network.

For further information, contact John Young at (403) 495-6882; e-mail: john.young@wd.gc.ca; website: <http://www.wd.gc.ca/eng/content/toolkit/smallbus/xcontent.html>. □

■ Organisation for Economic Co-operation and Development

Unemployment is predicted to decline very slowly in OECD countries through 1999 to about 7%, or more than 35 million job-seekers.

The June 1998 issue of *Employment Outlook* looks at short-term prospects for these countries and outlines measures that should help increase jobs and reduce unemployment in the long run. This publication covers the following topics:

- **Recent developments** highlight the problems faced by the jobless in working-age households (almost 20% of which have no employed adults). This proportion has increased in almost all OECD countries over the last decade.
- **Minimum wages** help reduce inequalities in wages and incomes but, if set too high, can also cause employment losses among teenagers. They are neither the sole solution to overall family poverty nor the general scourge on jobs that some believe.
- **Youth labour market** problems are in the forefront of employment policies, as people's initial foray into the world of work is, for many, a harbinger of their future. While many factors influence the transition from school to work, countries with strong apprenticeship systems tend to be most successful in integrating youths into employment.
- **Ageing workforces** raise major economic challenges that can be turned into opportunities. "Active ageing" will become a reality only if labour markets, enterprises and workers are able to adapt and make the most of older workers' skills while guaranteeing them adequate standards of living.
- Trends in **work time** reflect developments such as the recent reversal of the downward trend in hours of full-time workers in some countries, a widespread increase in part-time work, but slower growth in other forms of flexible schedule. Analysis concludes that legislated reduction in work hours alone cannot be counted on to reduce unemployment.

For further information on *Employment Outlook* (Catalogue no. 81 98 06 1 P; ISBN: 92-64-16077-9 – No. 50073 1998), contact OECD Publications, 2, rue André-Pascal, 75775 Paris Cedex 16, France. □

■ WHAT'S NEW WITH SLID?

About 21% of Canadians who had a low-paying job in 1993 had managed to improve their situation by 1995, according to a study based on new data from the Survey of Labour and Income Dynamics. They were able to do so by changing jobs, working longer hours or receiving a pay increase.

Men were more likely than women to escape a low-paying job. Moreover, female lone parents had an especially hard time moving up to jobs that paid more.

This study covered about 2,200 paid workers who were employed in both December 1993 and December 1995, and who had low earnings in December 1993. They ranged in age from 16 to 60, and were not enrolled in school full time in either 1993 or 1995.

Workers were considered to have low-paying jobs if their weekly earnings in 1993 were less than \$404.16. This amount was roughly equivalent to Statistics Canada's low income cutoff for a family of two living in an urban area of at least half a million people. A low earner in 1993 was said to have "moved up" in 1995 if weekly earnings were at least \$455.25, that is, at least 10% greater than \$413.86, the low income cutoff for 1995 weekly earnings.

The Upward Mobility of Low-paid Canadians, 1993 to 1995 (Product no. 75F0002MPE, 98-07, \$10 for a paper copy, or free on the Internet) is now available.

The third wave of data from the Survey of Labour and Income Dynamics (for the period January to June 1995) has also been released. Data can be accessed through custom retrievals or remote access. But in order to allow for an earlier release of the next wave of data, no public-use microdata file will be produced for the current wave until the end of 1998.

For further information on data products, or to order the study, contact Client Services, Income Statistics Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; e-mail: dynamics@statcan.ca. □

■ UPCOMING CONFERENCE

■ **1998 CSLS Conference on the State of Living Standards and Quality of Life in Canada**

October 30-31, 1998, Ottawa

The Centre for the Study of Living Standards (CSLS) has organized a major conference on the state of living standards and quality of life in Canada. The conference, to be held at the Chateau Laurier hotel, will look at trends in consumption flows, stocks of wealth, inequality, and economic security. Thirty papers will be presented.

For further information, contact Andrew Sharpe at (613) 233-8891; fax (613) 233-8250; e-mail: csls@csls.ca. The program is posted on the CSLS website at www.csls.ca. □

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Key labour and income facts

The following is a guide to data sources for labour market, business, income and earnings, pension, education and other household topics. Each quarter, this section presents charts and analysis featuring one or more of these sources. For general inquiries, please contact Joanne Bourdeau at (613) 951-4722; e-mail: bourjoa@statcan.ca or Marie-Paule Robert at (613) 951-4628; e-mail: robemar@statcan.ca.

Administrative data

Small area and administrative data
Frequency: Annual
Contact: Customer Services
(613) 951-9720

Business surveys

Annual Survey of Manufactures
Frequency: Annual
Contact: Richard Vincent
(613) 951-4070

Business Conditions Survey of Manufacturing Industries
Frequency: Quarterly
Contact: Claude Robillard
(613) 951-3507

Census

Census labour force characteristics
Frequency: Quinquennial
Contact: Michel Côté
(613) 951-6896

Census income statistics
Frequency: Quinquennial
Contact: Abdul Rashid
(613) 951-6897

Employment and income surveys

Labour Force Survey
Frequency: Monthly
Contact: Nathalie Caron
(613) 951-4168

Survey of Employment, Payrolls and Hours
Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Help-wanted Index

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Employment Insurance Statistics Program

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Major wage settlements

Bureau of Labour Information
(Human Resources
Development Canada)
Frequency: Quarterly
Contact: (819) 997-3117

Labour income

Frequency: Quarterly
Contact: Anna MacDonald
(613) 951-3784

Survey of Labour and Income Dynamics

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Survey of Consumer Finances

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Household Facilities and Equipment Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Family Expenditure Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

General Social Survey

Education, work and retirement
Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Social and community support

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Time use

Frequency: Occasional
Contact: Jennifer Hubbard
(613) 951-5979

Pension surveys

Pension Plans in Canada Survey
Frequency: Annual
Contact: Thomas Dufour
(613) 951-2088

Quarterly Survey of Trusteed Pension Funds

Frequency: Quarterly
Contact: Thomas Dufour
(613) 951-2088

Special surveys

Survey of Work Arrangements
Frequency: Occasional
Contact: Ernest B. Akyeampong
(613) 951-4624

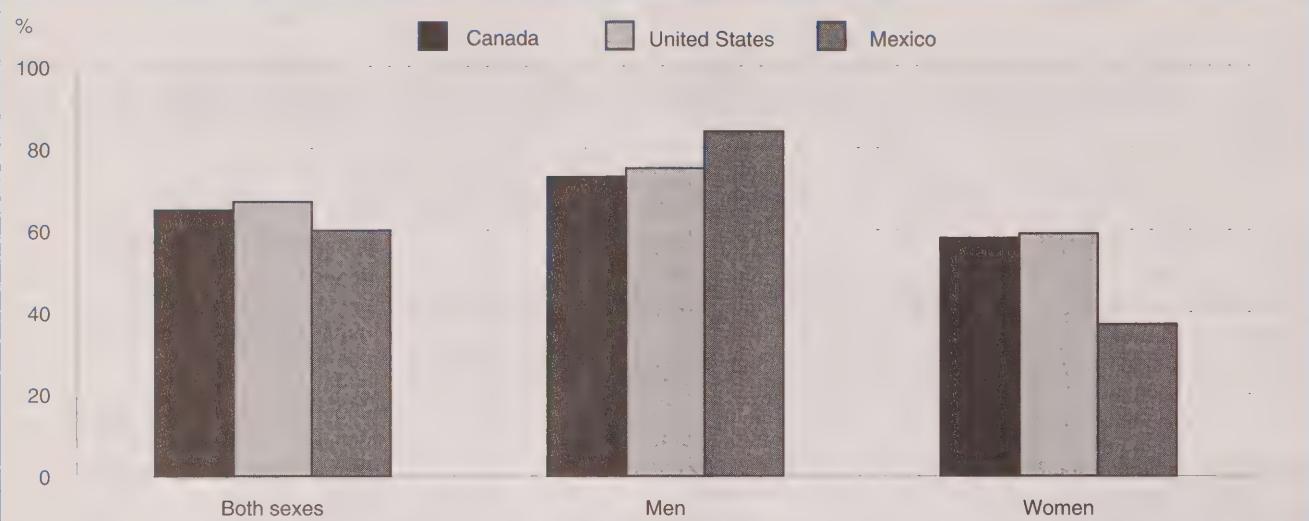
Adult Education and Training Survey

Frequency: Occasional
Contact: Steve Arrowsmith
(613) 951-0566

Graduate Surveys

(Postsecondary)
Frequency: Occasional
Contact: Bill Magnus
(613) 951-4577

Labour force participation rates by sex, 1995



Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey

Note: For Canada and Mexico, figures are for workers 15 years and over. For the United States, figures are for workers 16 years and over.

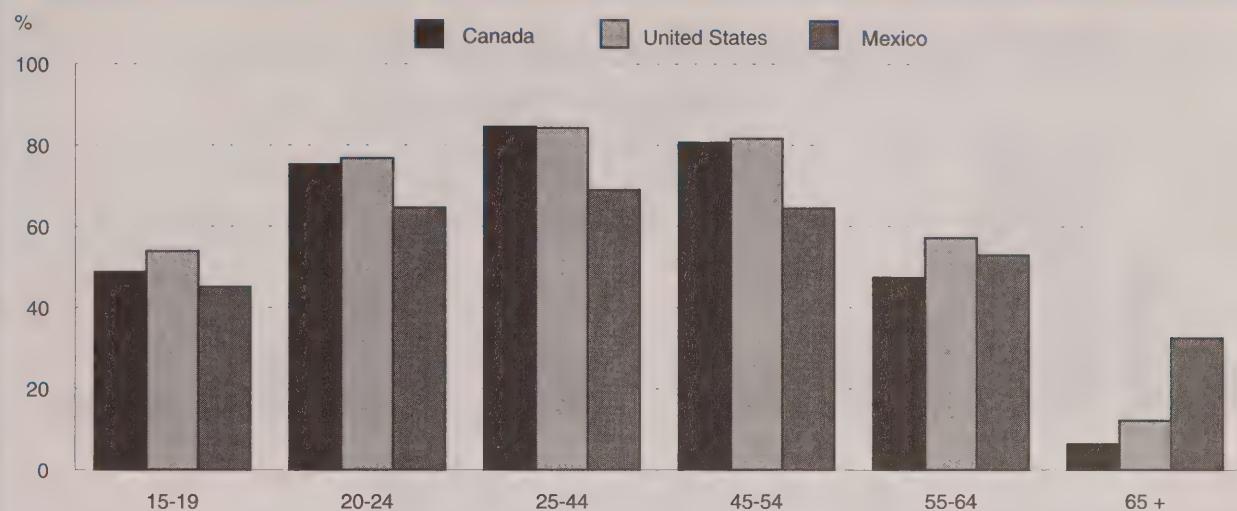
Women's labour force participation is lower in Mexico

In 1995, labour force participation of the working-age population (15 or 16 years and over) was similar in Canada and the United States (65% and 67%, respectively). In Mexico, where a smaller proportion of women participated, the rate was lower (60%).

Women's participation has increased greatly in all three countries in recent years, with Mexico showing the fastest rate of increase. Nevertheless, that country's female participation rate in 1995 (37%) remained substantially lower than that of Canada (58%) and the United States (59%). Accordingly, women made up 45% of the labour force in Canada, and 46% in the United States, but just 32% in Mexico.

Charts and text for this section of "Key labour and income facts" were adapted from *North American Labor Markets: A Comparative Profile, 1997* (Secretariat for the Commission for Labor Cooperation). For more information, contact the Secretariat at (214) 754-1100; fax (214) 754-1199; website: <http://www.naalc.org>.

Labour force participation rates by age, 1995



Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey
Note: For the United States, figures are for workers 16 years and over.

Fewer older workers in Canada

From 1984 to 1995, the most rapid growth in labour force participation in Canada and the United States occurred in the 45-to-54 age group, reflecting the baby boom generation and the increased participation of women in this age group. In contrast, Mexico's most rapid growth was among those aged 55 to 64.

Nevertheless, labour force participation in all three countries in 1995 was highest for those aged 25 to 44. Rates in Canada and the United States were similar for adults between 20 and 54, while those in Mexico were lower for all age groups except workers 55 and over.

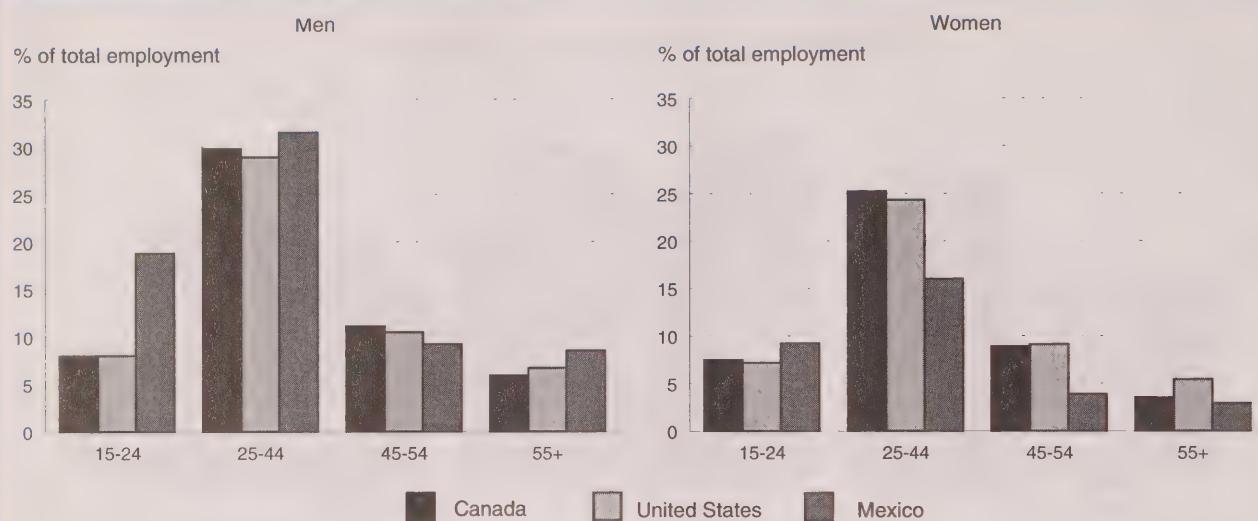
The United States had the highest participation rate for young workers (aged 16 to 24) in 1995, with rates having risen slightly since 1984. In contrast, rates for young Canadian workers (aged 15 to 24) dropped during the period, particularly during the 1990-91 recession, because

of difficult economic conditions and rising school enrolment. Participation rates for young Mexican workers increased substantially during the 1984-to-1995 period.

In 1995, labour force participation among 55 to 64 year-olds was highest in the United States: 57%. Mexico reported 53% and Canada, 47%. Participation rates for this age group have risen in the United States as more workers postpone retirement. In Canada, however, rates have dropped as a result of fewer job prospects and early retirement.

Mexico reported by far the highest labour force participation rate for workers aged 65 and over (33%), suggesting that many in this group did not have sufficient income to retire. In contrast, the participation rate for this age group was 12% in the United States and just 6% in Canada.

Employment by age and sex, 1995



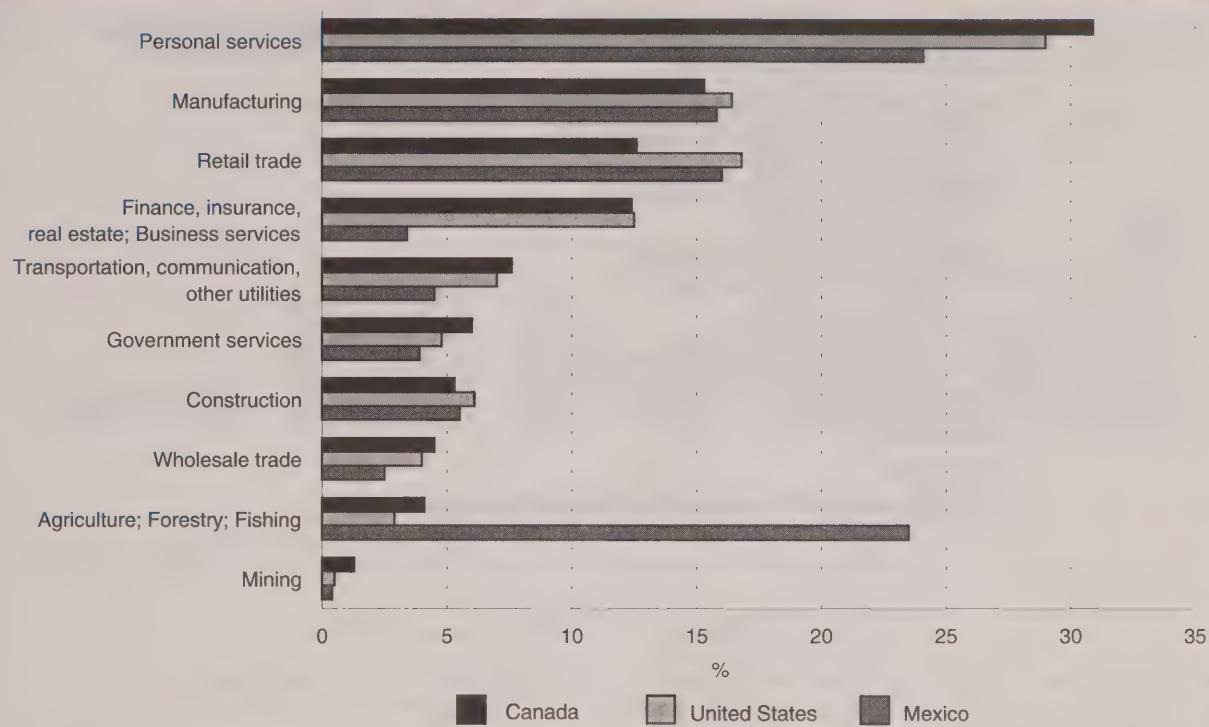
Sources: Canada, Labour Force Survey; United States, Current Employment Survey; Mexico, National Employment Survey
Note: For the United States, figures are for workers 16 years and over.

Young men make up 19% of the labour force in Mexico

Young men (15 to 24) accounted for a disproportionate share of employment in Mexico (19%, compared with 8% in Canada and the United States). On the other hand, Mexican women aged 25 to 44 were under-represented: they accounted for just 16% of employment, compared with 25% in Canada and 24% in the United States.

Employment growth during the 1984-to-1995 period was strongly influenced by the increasing participation of women in the labour force in all three countries. In Canada, women's employment grew 28%, compared with 12% for men. In the United States, employment rose by almost 25% for women but only 14% for men. In Mexico, women's employment grew 72%, while men's increased by 39%.

Employment by industry, 1995



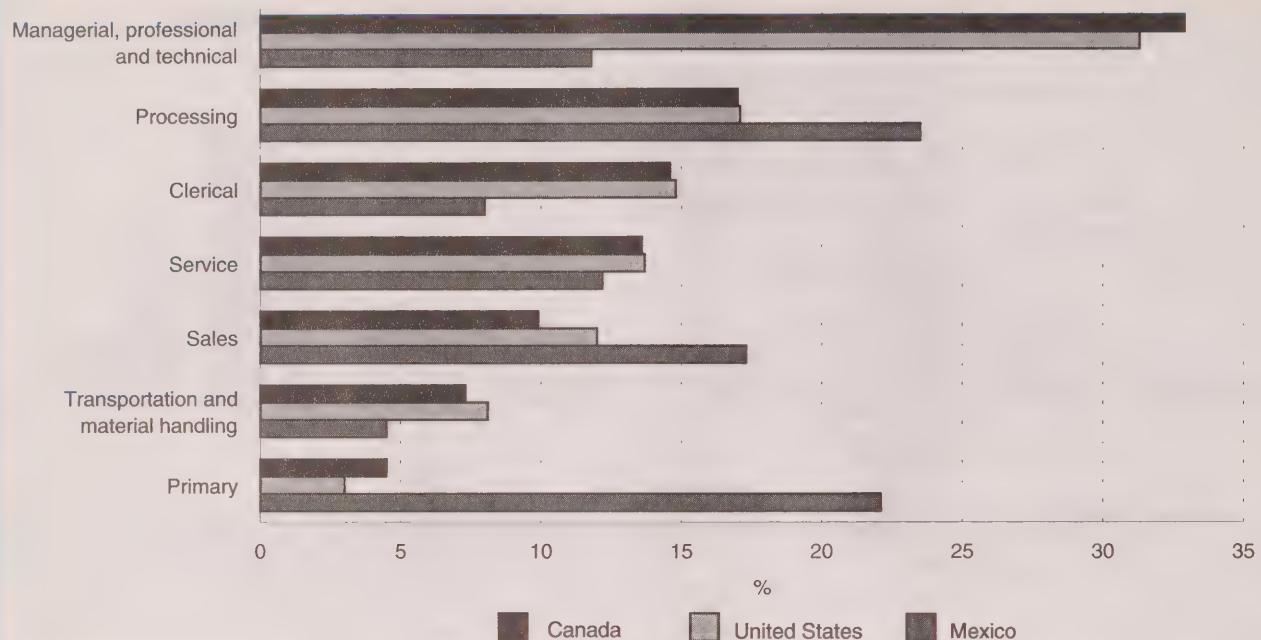
Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey

Note: For Canada and Mexico, figures are for workers 15 years and over. For the United States, figures are for workers 16 years and over.

Mexico's primary sector a major employer

The three countries differ considerably in their distribution of employment by industry. For example, in Mexico, employment is heavily reliant on primary industries (agriculture, forestry, and fishing). In spite of a substantial decline in recent years, these industries still accounted for almost one-quarter of total employment in 1995, compared with less than 5% in Canada and the United States.

On the other hand, employment in service industries (particularly finance, insurance and real estate; business services; and personal services) was much higher in Canada and the United States (nearly three-quarters of total employment for both countries in 1995) than in Mexico (54%).

Employment by occupation, 1995

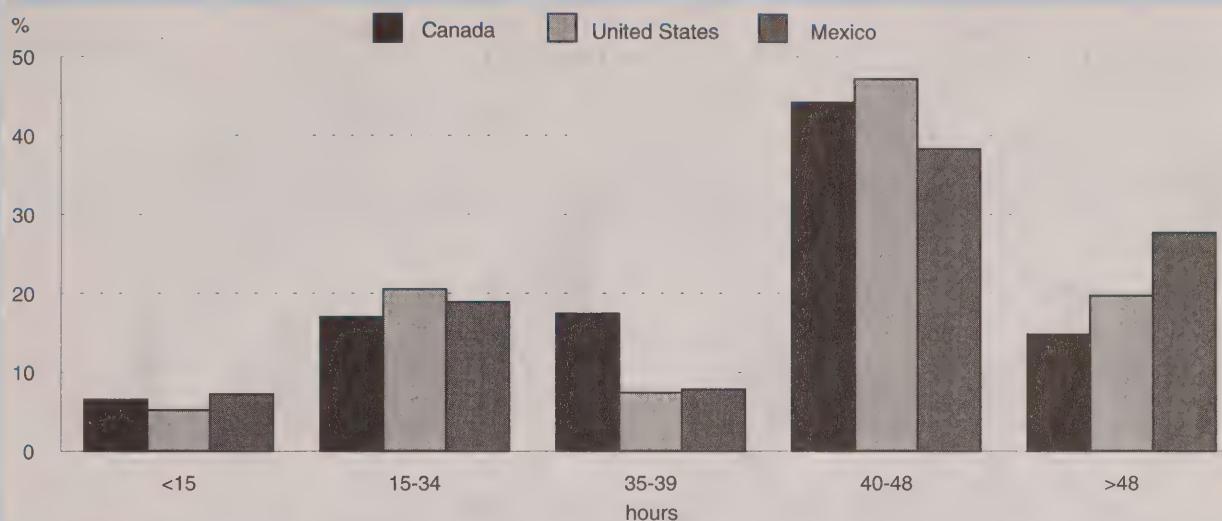
Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey

Note: For Canada and Mexico, figures are for workers 15 years and over. For the United States, figures are for workers 16 years and over.

Professional occupations are much more common in Canada and the United States

In 1995, employment in managerial, professional and technical occupations was much higher in Canada and the United States than in Mexico. Reflecting the industry pattern, employment in primary occupations was substantially greater in Mexico.

In all three countries, clerical and service occupations were filled mainly by women, while primary; processing; and transportation and material handling jobs went to men. In Canada and in the United States, managerial, professional and technical positions were held by men and women in similar proportions; in Mexico, these occupations were dominated by men.

Employment by hours of work, 1995

Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey

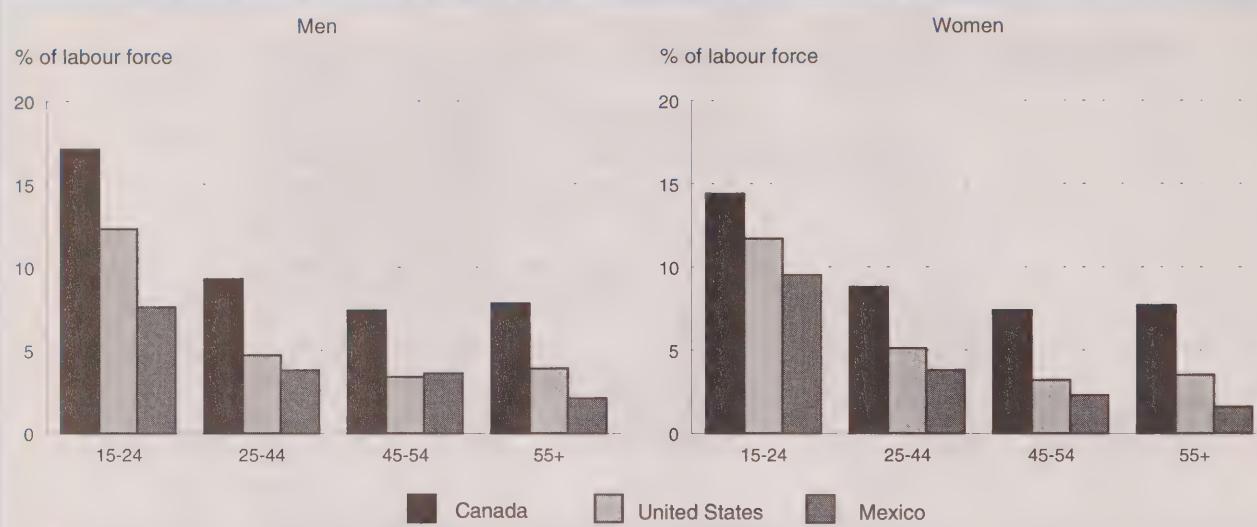
Note: For Canada and Mexico, figures are for workers 15 years and over. For the United States, figures are for workers 16 years and over.

Most North Americans work 40 or more hours per week

Less than half of North American workers had a standard 40-to-48 hour work week in 1995. Some 28% of those in Mexico put in more than 48 hours; this compares with 20% in the United States and 15% in Canada. The United States reported the highest proportion of workers with standard hours; Canada, the highest with a 35-to-39 hour week. (In much of the Canadian public sector, a 37.5-hour work week is standard.)

In all three countries, men worked much longer hours than women. The percentage who worked 40 or more hours per week ranged from 73% in Mexico to 76% in the United States. In contrast, 57% of women in the United States worked 40 or more hours per week, compared with 51% and 37% of those in Mexico and Canada.

Unemployment rates by age and sex, 1995



Sources: Canada, Labour Force Survey; United States, Current Population Survey; Mexico, National Employment Survey

Notes: Figures span to second quarter 1995 for Canada and to third quarter 1995 for the United States.

For the United States, figures are for workers 16 years and over.

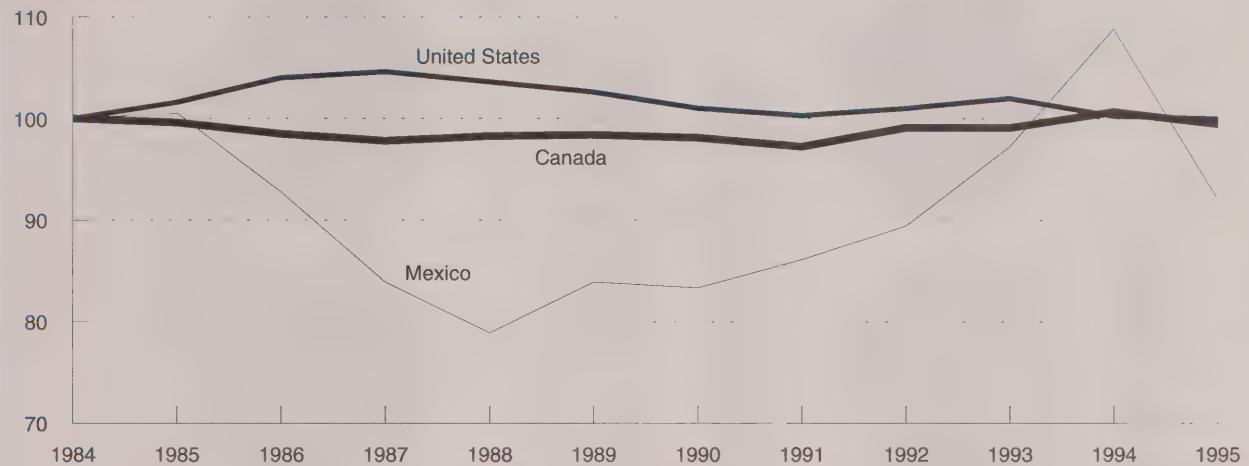
Unemployment is highest among young people

In 1995, unemployment rates in Canada, the United States and Mexico were highest for young men and women under 25 years of age. In fact, unemployment for this age group was more than double that of any other age group in North America.

In all three countries, workers 45 years and over had the lowest rates of unemployment in 1995. With the exception of men aged 45 to 54, the rates for all ages and both sexes followed a pattern: they were highest in Canada, followed by the United States and Mexico.

Real average weekly earnings *

Index 1984=100



Sources: Canada, Survey of Employment, Payroll and Hours; United States, Current Employment Statistics Program;
Mexico, Mexican Institute of Social Security

* National currency basis. For Canada, data are for all employees in the private sector, excluding those in agriculture, fishing and trapping. For Mexico, data are for employees in the private formal sector. For the United States, data are median earnings for full-time employees.

Mexico's weekly earnings have varied more

Weekly earnings from 1984 to 1995 fluctuated more in Mexico than in either Canada or the United States.

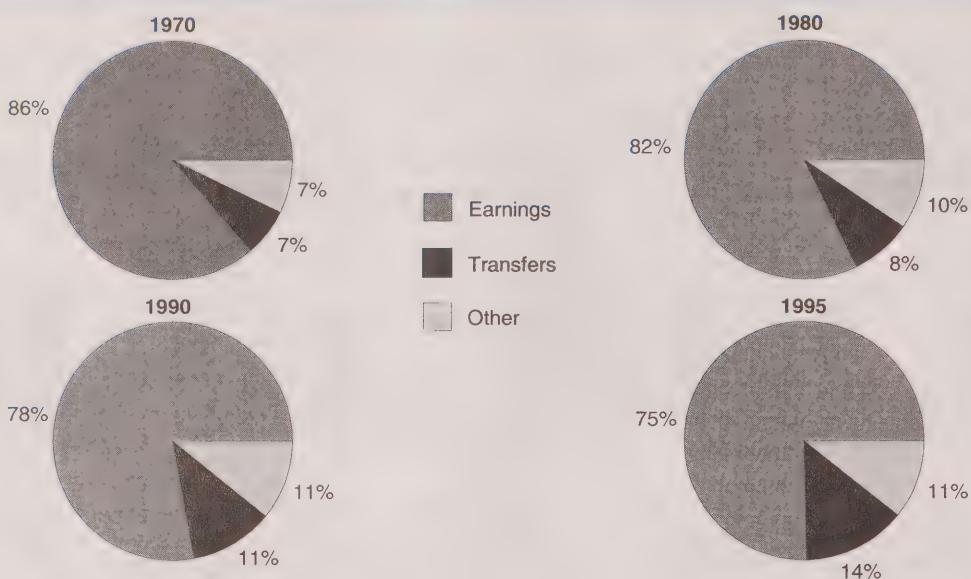
After a period of moderate decline, Canadian earnings for all employees in the private sector began to recover in 1992, thanks to a large drop in inflation and improved labour productivity (output per hour). By 1995, real average weekly earnings remained slightly (0.4%) below 1984 levels, while labour productivity in the business sector had grown by almost 10%.

In the United States, real median weekly earnings of full-time employees in the private sector increased by 4% from 1984 to 1988. After 1988, real earnings declined. By

1995, levels of real earnings matched those of 1984. In contrast, labour productivity (output per hour) in all private industries (business sector) increased by almost 12% between 1984 and 1995.

In Mexico, real average weekly earnings for employees in the private formal sector decreased substantially (21%) from 1984 to 1988. After 1989, with lower inflation and higher labour productivity (output per employee), earnings began to recover, exceeding 1984 levels by 1994. In 1995, a strict monetary policy was implemented to stabilize the economy. Real earnings fell once again and moderate wage growth was more than offset by a high inflation rate.

Components of income



Source: Census of Canada

Transfer payments' share has doubled since 1970

Earnings in Canada continued to decline as a proportion of total income between 1990 and 1995. In 1995, employment income accounted for 75 cents of every dollar of income, down from 78 cents in 1990 and 86 cents in 1970.

The share of government transfer payments, such as old age pensions, employment (unemployment) insurance benefits, child tax credits/benefits and Goods and Services Tax credits, doubled over the past quarter century. In 1995, these transfers accounted for 14 cents of every dollar of income, compared with 11 cents in 1990 and less than 7 cents in 1970.

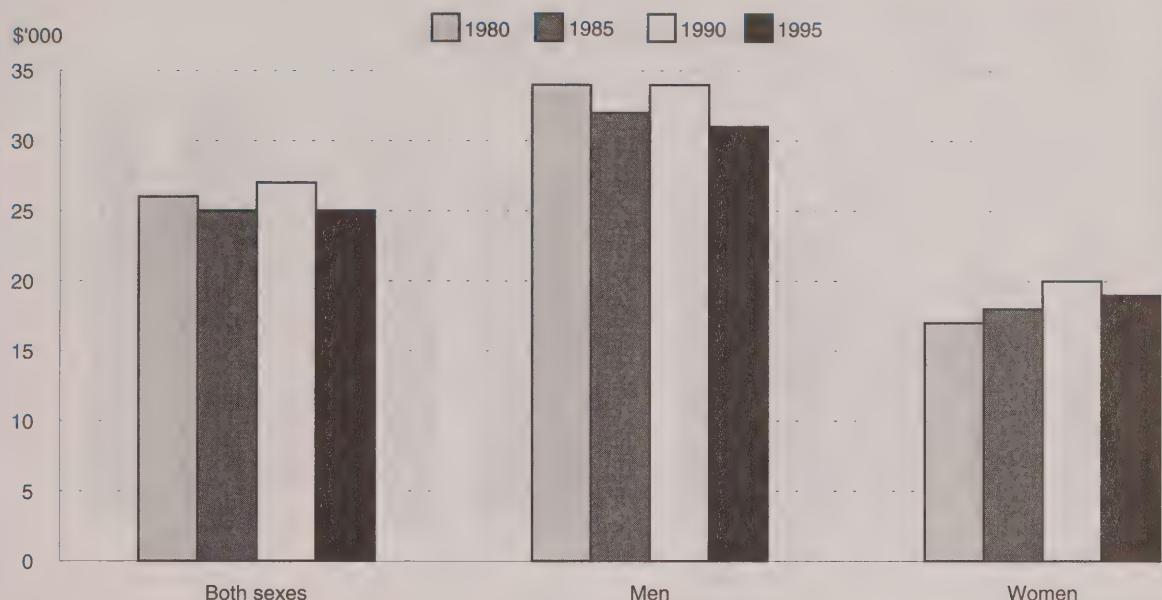
This increase resulted from changes in social security programs and in the demographic composition of the

population. Between 1971 and 1996, the total population increased 34%, while the population aged 65 and over, which received many of these transfer payments, more than doubled.

In 1990, almost identical numbers of people (2.8 million) received Old Age Security pensions and Canada/Quebec Pensions. By 1995, the number of OAS recipients had increased by 320,000 (11%), while the number of recipients of C/QPP benefits had grown by over one million (39%). The number of recipients of employment (unemployment) insurance benefits had declined 6%, and the number of recipients of child tax credits/benefits, 8%.

The remaining 11 cents of every dollar of income in 1995 came from sources such as investment income and retirement pensions. This amount increased from about 7 cents in 1970.

Charts and text for this section of "Key labour and income facts" were adapted from Statistics Canada's *The Daily*, Census Release, May 12, 1998. For more information, contact Bruce Rogers of the Labour and Household Surveys Analysis Division at (613) 951-2883; e-mail: rogebru@statcan.ca.

Average total income (1995 \$) of individuals

Source: Census of Canada

Average total income has changed very little in 15 years

In 1995, nearly 21 million individuals had an average total income of \$25,200, down 6% from 1990 after adjustment for inflation. This decrease wiped out gains made during the second half of the 1980s. As a result, average total income was almost identical to that of 1985, and slightly below the level of 1980.

The average income of men (\$31,100) was about 8% below that of 1990. In 1995, women accounted for almost half of all income recipients. Their average income was \$19,200, down 2% from 1990.

Despite the recession of the early 1980s, women increased their purchasing power by almost 5% between 1980 and 1985, and gained another 12% between 1985 and 1990. Thus, unlike men, whose average income declined between 1980 and 1995, women enjoyed a 15% increase.

Note: effect of inflation

All income data in this report are presented in 1995 dollars. Incomes from previous censuses have been adjusted for changes in the prices of goods and services.

For example, the actual average income of a census family in 1995 was \$54,600, compared with \$51,300 in 1990. This is an increase of 6% before adjustment. When changes in prices are taken into account, real (constant-dollar) family income declined by 5%.

Definitions

A census family is a now-married couple (with or without never-married sons or daughters), a couple living common law

(with or without never-married sons or daughters), or a lone parent with at least one never-married son or daughter living in the same dwelling. Families of now-married and common-law couples together constitute husband-wife families.

Total income comprises wages and salaries, net earnings from farm and non-farm self-employment, government transfer payments, investment income, retirement pensions and other money income.

The total income of a census family is all income received by all family members aged 15 and over during the calendar year preceding the census.

Average earnings (1995 \$) of men and women

Source: Census of Canada

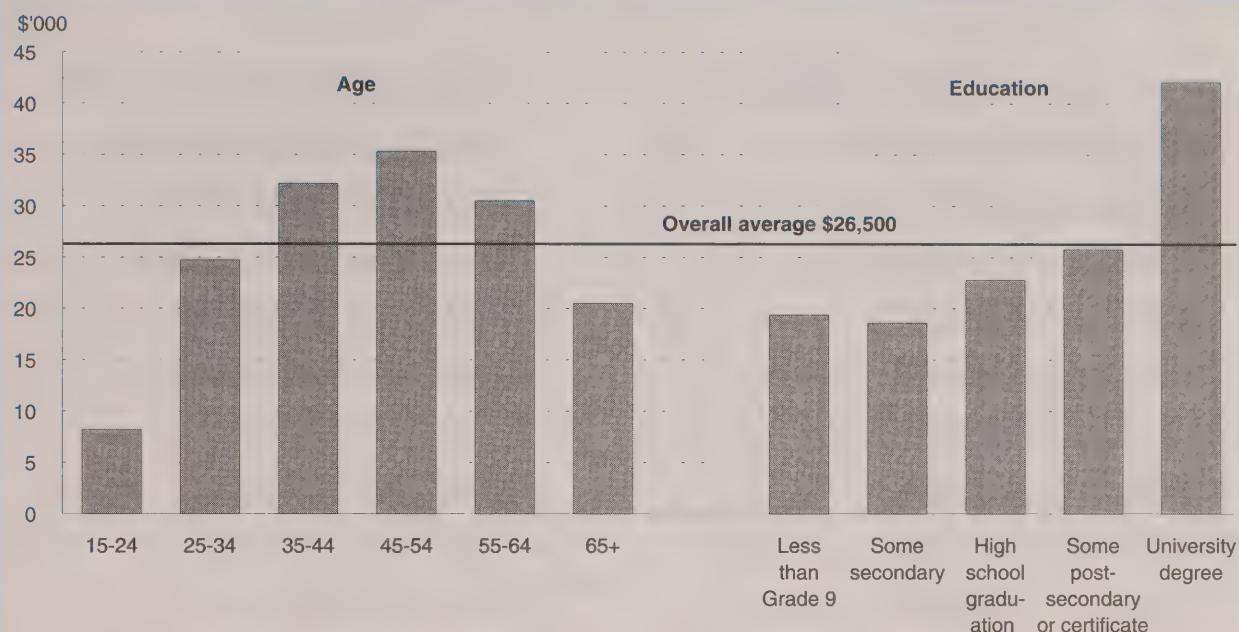
Average earnings of men declined while women's increased

In 1995, men reported average earnings of \$31,900, down 5% from a high of \$33,500 in 1980. Average earnings of men fluctuated with the economic cycles over the 15-year period. In contrast, earnings of women steadily increased. Women reported earnings of \$20,200 in 1995, up 16% from \$17,400 in 1980.

Time spent on work is closely related to earnings. In 1995, men who worked full year full time reported earnings of \$42,500, down 2% from 1990. Those who worked part year or part time earned \$18,400, down 7% during this 5-year period. In contrast, the average earnings of women who worked full year full time increased 4% to \$30,100. Earnings of women who worked part year or part time increased 1% to \$12,600. (A full year is defined as 49 weeks or more; full time as 30 or more hours per week.)

About one-half of all earners worked full year full time in 1995. Among men, the proportion declined from 58% in 1990 to 56% in 1995. Among women, it declined from 44% to 43%. Without these changes in the amount of time worked, average earnings of men would have declined 3% instead of 4%, and those of women would have increased 3% instead of 2%.

The female/male earnings ratio has risen steadily during the past 15 years. Overall comparisons show that in 1995, women who worked full year full time earned on average 71 cents for each dollar earned by their male counterparts, compared with 67 cents in 1990, 66 cents in 1985 and 64 cents in 1980.

Average earnings by age and education, 1995

Source: Census of Canada, 1996

Shifts in age profile of earners moderated overall decline in earnings

In general, individual earnings increase with age and work experience. In 1995, average earnings were lowest at \$8,200 for those aged 15 to 24. They increased to \$35,300 for those 45 to 54, then declined to \$20,400 for those 65 and over. This pattern was consistent for both men and women.

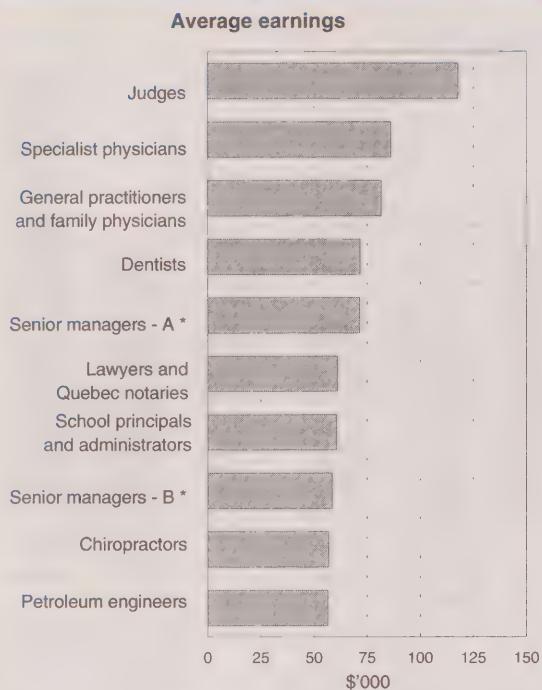
Although the overall number of earners was virtually unchanged between 1990 and 1995, their age distribution changed substantially. Shifts in the age profile of earners mitigated the general drop in earnings. For example, the number of people in the highest earnings group (aged 45 to 54) increased 23% between 1990 and 1995, while the number in the next group (35 to 44) increased almost 8%. All other things being equal, without these demographic shifts, overall average earnings would have declined almost 6%, instead of 3%.

More mature, better-educated workforce offset decline in earnings

The negative effect of the recession of the early 1990s was considerably offset by a more mature and better-educated workforce.

In 1995, persons with a university degree reported average earnings of \$42,100, compared with about \$19,000 for those who had not completed high school. High school graduates reported average earnings of \$22,800.

However, average earnings declined in all education categories between 1990 and 1995. People with less than a Grade 9 education incurred the largest decline in average earnings: 8%. Average earnings for high school graduates declined 3%, while those for university graduates declined almost 6%.

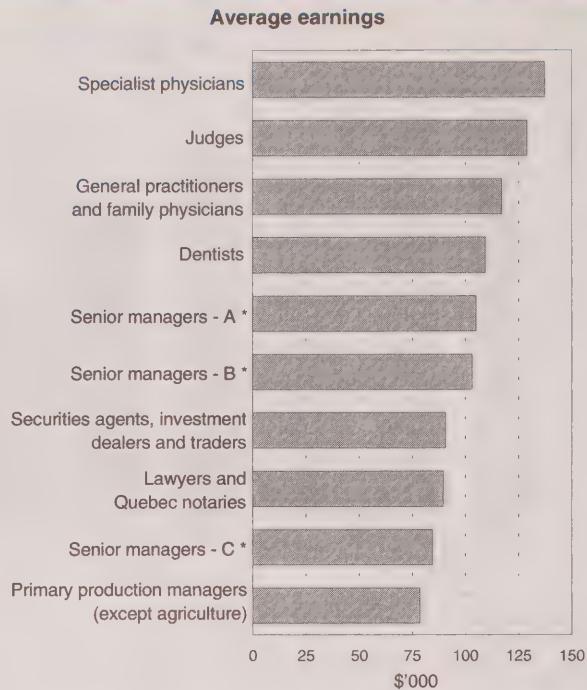
Ten highest-paying occupations for women, 1995

Source: Census of Canada, 1996

*A Finance, communications carriers and other business services.

B Goods production, utilities, transportation and construction.

C Trade, broadcasting and other services.

Ten highest-paying occupations for men, 1995

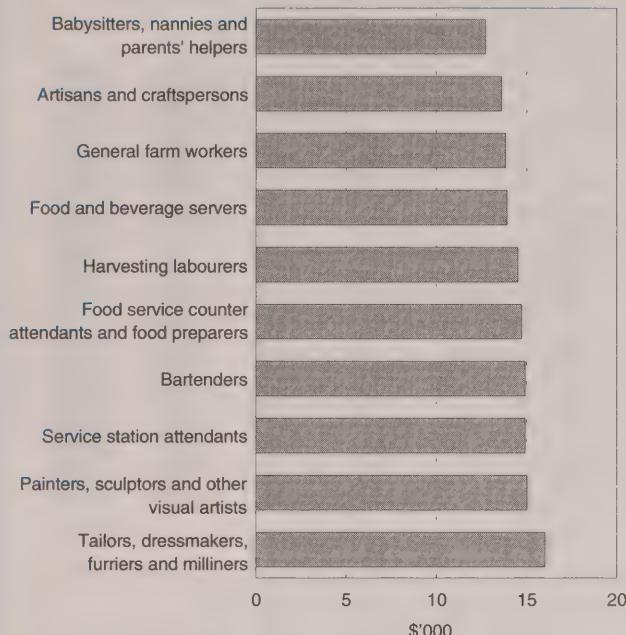
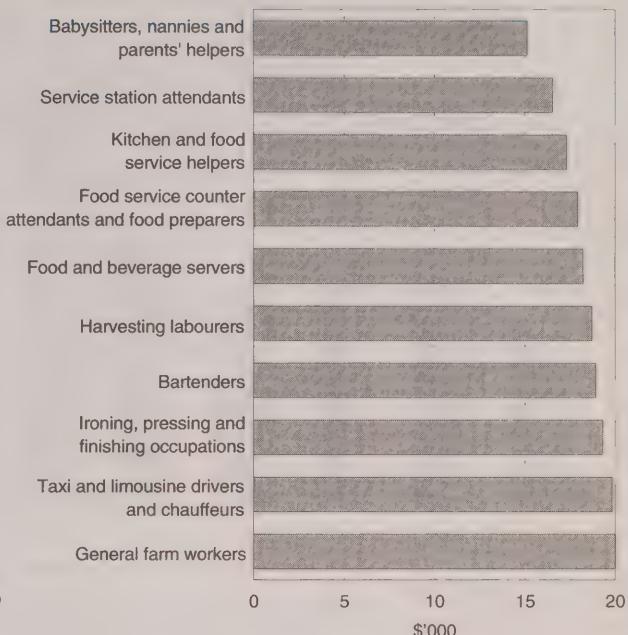
Women have made inroads in high-paying occupations...

In 1995, more than 7.5 million Canadians worked full year full time in 514 occupations for which employment income data are available. Almost 200,000 worked in the 10 highest-paying occupations.

Earnings in these occupations varied considerably. Judges recorded the highest average earnings (\$126,200), followed by specialist physicians and surgeons (\$124,000), general practitioners and family physicians (\$107,600) and dentists (\$102,400).

Securities agents, investment dealers and traders experienced the largest increases, both in number (33%) and average earnings (23%), between 1990 and 1995. The number of dentists increased 21%, but their average earnings declined 2%.

Women increased their representation among the 10 highest-paying occupations from 1990 to 1995. The largest growth occurred in two groups: lawyers and Quebec notaries, and elementary and secondary school principals and administrators. In each, the number of women who worked full year full time increased by 3,000. The number of female dentists nearly doubled from 800 to 1,500.

Ten lowest-paying occupations for women, 1995**Average earnings****Ten lowest-paying occupations for men, 1995****Average earnings**

Source: Census of Canada, 1996

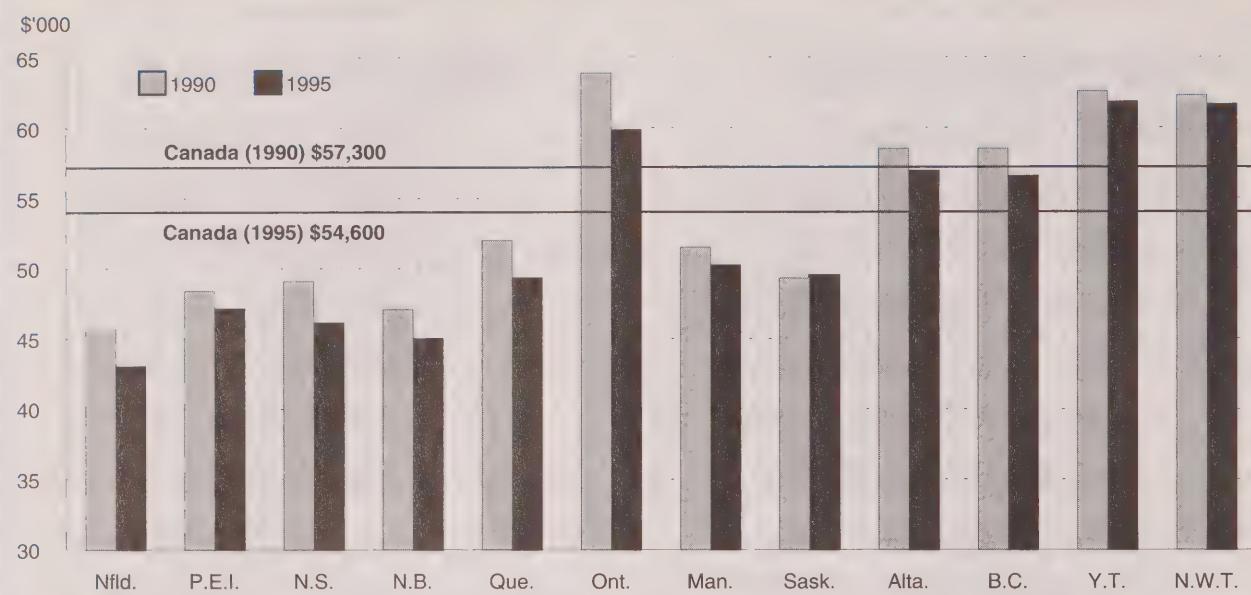
but remain the majority in the lowest-paying occupations

About 200,000 individuals worked full year full time in the 10 lowest-paying occupations. As in 1990, the majority, more than three out of every five, were women.

The lowest-paying category in 1995 for both women and men was babysitters, nannies and parents' helpers. Other low-paying jobs for women included artisans and craftspersons; painters and sculptors; and tailors, dressmakers and furriers.

Low-paying occupations for men included kitchen helpers; ironing, pressing and finishing occupations; and taxi and limousine drivers and chauffeurs.

Average employment income in the 10 lowest-paying occupations in 1995 ranged from \$12,700 to \$16,000 for women and from \$15,100 to \$20,000 for men.

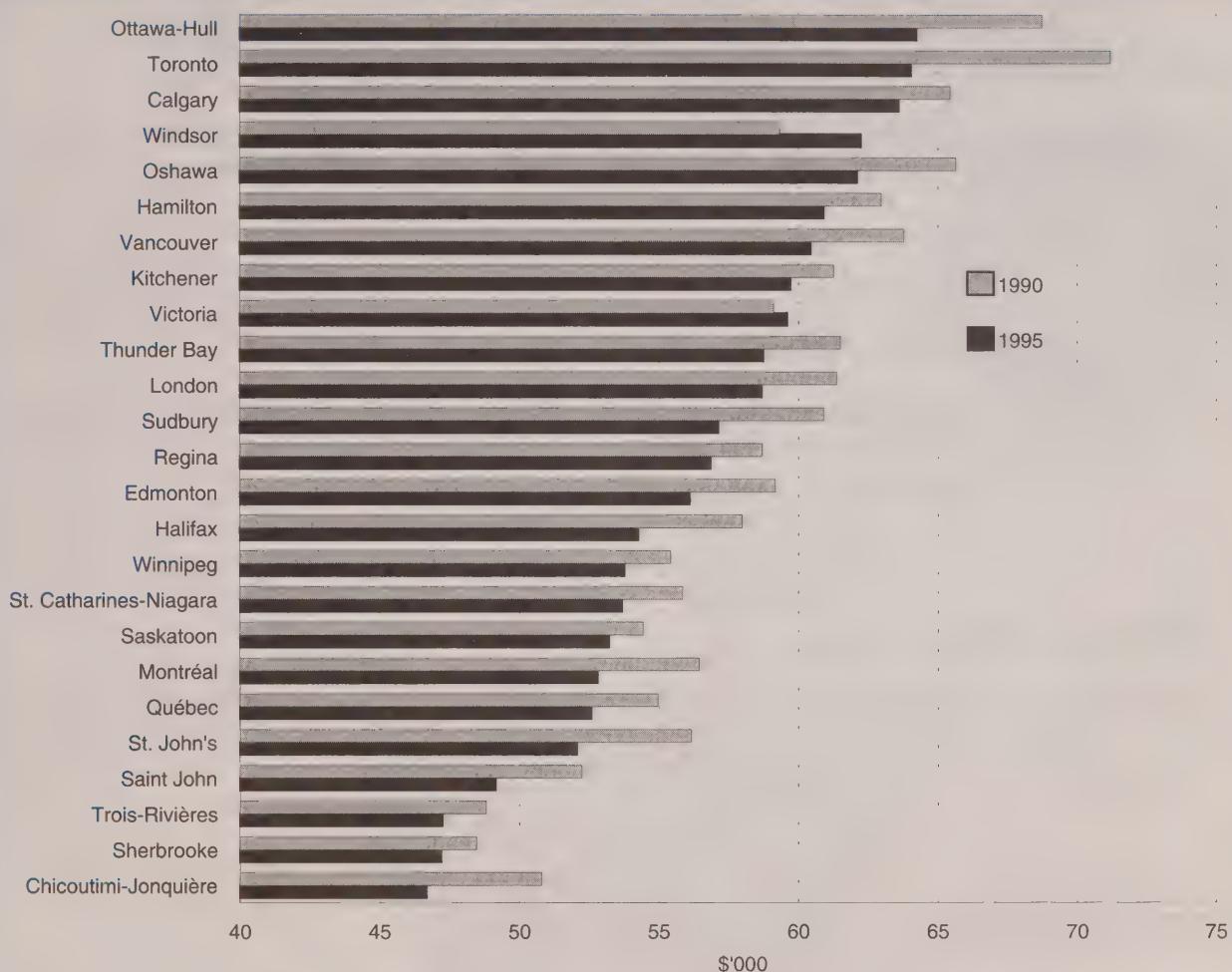
Average family income by province or territory

Source: Census of Canada

Family income declined across Canada

Average family income (in 1995 dollars) declined between 1990 and 1995 in all provinces and territories except Saskatchewan, where it increased slightly. The greatest decrease occurred in Ontario, where the average family income dropped by about \$4,000.

The national average was \$57,300 in 1990. By 1995, this had declined to \$54,600, a drop of 5%. Average family income in Ontario remained above the national average, as it did in Alberta, British Columbia and the two territories. In contrast, Manitoba, Saskatchewan, Quebec and the Atlantic provinces recorded figures below the national average. These patterns were consistent with those of 1990.

Average family income by census metropolitan area

Source: Census of Canada

Family income declined in most census metropolitan areas

Average family income declined between 1990 and 1995 in all census metropolitan areas except two. In Windsor, it increased 5%, and in Victoria, it increased slightly.

The declines ranged from 2% in Saskatoon to 10% in Toronto. Eleven census metropolitan areas registered decreases greater than the national average of 4.8%. In the remaining 12, the declines were below the national average.

The census metropolitan area with the highest average family income in 1995 was Ottawa-Hull. Toronto moved from first to second place. Calgary replaced Oshawa in third place. In both 1990 and 1995, the lowest income figures were reported in Chicoutimi-Jonquière, Sherbrooke and Trois-Rivières.

In the works

Here are some of the topics to be featured in upcoming issues

■ High school may not be enough

How does education influence employment? The 1995 School Leavers Follow-up Survey helps answer this question, by supplying data on unemployment rates, earnings, and job-related training.

■ Factors underlying job stability

Has job stability changed over the last 20 years? This article examines trends in job duration by sex, age, education, and full- or part-time employment status.

■ Raising the stakes

This article updates "A sure bet industry" (published in the Autumn 1996 issue), which looked at employment growth and characteristics of workers and jobs, amounts spent per household, and revenue generated by lotteries, casinos and video lottery terminals.

■ The rise of unionization among women

This profile of unionized women covers demographic and labour characteristics, wages, benefits and work arrangements.

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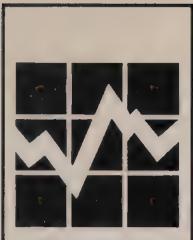
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WINTER 1998

Vol. 10, No. 4

- GAMBLING UPDATE
- INCOME INEQUALITY
- RETIREMENT INCOME
- JOB STABILITY
- UNIONIZATION RATES
- INDEX: 1989-1998



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ON LABOUR AND INCOME

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■ Articles

- 7 The gambling industry: Raising the stakes**
Katherine Marshall

Since the introduction of casinos and video lottery terminals in the 1990s, growth in gambling has outstripped that of most other industries. This article updates an earlier examination of employment and government revenue for this industry, as well as average household spending on games of chance.

- 12 Family income inequality, 1970-1995**
Abdul Rashid

Income inequality among families increased between 1970 and 1995 as a result of the recessions of the early eighties and nineties. This article looks at the extent of, and changes in, family income inequality over the period. It also demonstrates the role of government transfer payments and personal income taxes in reducing inequality.

- 18 Income transition upon retirement**
Dave Gower

This article examines the situation of people who retired in the first half of the 1990s to see how well their retirement income has replaced their former income.



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Our 10th anniversary logo was designed by John Bradford of the Labour and Household Surveys Analysis Division.

24 Job stability

Andrew Heisz and Sylvain Côté

This article investigates the common claim that jobs are less stable in the service sector. It also contests the view that overall job stability has declined as the economy has shifted toward employment in services. (Adapted from an article in *Canadian Economic Observer* published in May 1998.)

30 The rise of unionization among women

Ernest B. Akyeampong

This profile of unionized women covers demographic and labour characteristics, wages, benefits and work arrangements. Also included are selected union statistics for both men and women. (This is an updated version of an article released shortly before Labour Day, 1998.)

Symbols

The following standard symbols are used in Statistics Canada publications:

- .. figures not available
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- amount too small to be expressed
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- r revised figures
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Forum

Letter from the Managing Editor

With this issue we wrap up our 10th year of publication. This also marks the last in-house contribution by one of our most prolific analysts. Dave Gower broke new ground in our première issue with his study on the unemployment mosaic in Canada. Appropriately, his final article explores a new approach for the study of income after retirement. (Perhaps we can expect a field report next year on how well reality compares with theory!)

Also on the subject of income, we feature a look at family income inequality from 1970 to 1995, prepared by census income expert, Abdul Rashid.

Labour issues covered in this issue include job stability in the 1990s, by Andrew Heisz and Sylvain Côté of the Business and Labour Market Analysis Division. Our publication adapts an earlier version of their article published in *Canadian Economic Observer*.

And, in response to continued interest in the subject, Katherine Marshall updates her widely read study on the fast-growing gambling industry.

Rounding out the issue is Ernest B. Akyeampong's portrait of unionization in Canada; in particular, the growing rate among women.

Finally, "Key labour and income facts" reproduces some material from a major study of the transition from school to work (the School Leavers Follow-up Survey).

On another note, in the summer issue we mentioned a new hyperlink being developed for Statistics Canada's website. The "In depth" link, which provides access to the Agency's analytic periodicals, is now available. A downloadable copy of either an article or an abstract from the latest issue will be available for each featured publication. The link for *Perspectives* will also lead to online versions of back issues.

As always, we welcome your comments.

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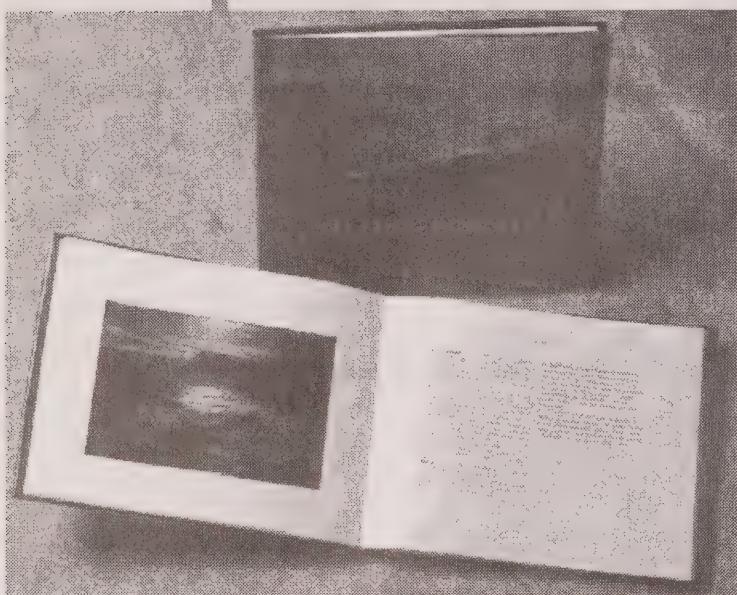


We welcome your views on articles and other items that have appeared in *Perspectives*. Additional insights on the data are also welcome, but to be considered for publication, communications should be factual and analytical. We encourage readers to inform us about their current research projects, new publications, data sources, and upcoming events relating to labour and income.

Statistics Canada reserves the right to select and edit items for publication. Correspondence, in either official language, should be addressed to: Bruce Rogers, "What's new?" *Perspectives on Labour and Income*, 5-D Jean Talon Building, Statistics Canada, Ottawa K1A 0T6. Telephone (613) 951-2883; fax (613) 951-4179; e-mail: rogebru@statcan.ca.

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Highlights

■ The gambling industry: Raising the stakes ... p. 7

- Casinos and video lottery terminals spurred economic and employment growth in the gambling industry in the 1990s. Accounting for 10% of the \$2.7 billion in revenue in 1992, they pulled in 59% of the \$6.8 billion in 1997.
- Gambling profits to provincial governments have increased – rising from \$1.7 billion in 1992 to \$3.8 billion in 1997. These profits represented less than 3% of total government revenue in all provinces in 1992. By 1997, half of all provinces had reached at least 3%, two having surpassed 4%.
- Between 1992 and 1997, employment in the gambling industry increased by almost 200%, from 12,000 jobs to 35,000. This net increase of 23,000 jobs accounted for 2% of total employment growth in the five-year period.
- Compared with those in other industries, workers in the gambling industry were more likely to be women (55% versus 45%); under the age of 35 (61% versus 40%); high school graduates at most (57% versus 48%); and employees rather than self-employed (98% versus 82%). In addition, full-time workers tended to have lower average hourly earnings than those in other industries (\$13.32 versus \$16.55).
- Average annual expenditures on government-run lotteries, casinos and video lottery terminals ranged from \$75 in the two Territories to \$348 in Quebec – with a national average of \$294.

■ Family income inequality, 1970-1995 ... p. 12

- While the purchasing power of families increased by 32% between 1970 and 1995, overall family income inequality also grew slightly.
- The recessions of the early 1980s and 1990s accounted for most of the increase in income inequality.

■ Demographic and structural changes such as the increases in female lone-parent families, dual-earner families and elderly families also affected the relative shares of total income for different groups.

■ Both government transfer payments and personal income taxes played a crucial role in reducing family income inequality. Without these measures, inequality would have been more than 50% higher.

■ Income transition upon retirement ... p. 18

- Overall, Canadians who retired between 1992 and 1995 maintained 58% of the income level they enjoyed before retirement, after allowing for inflation.
- This differed by pre-retirement income. Those who had less than \$10,000 a year actually saw an increase, and men in this group more than doubled their income.
- At the other end of the scale, people with \$70,000 or more before retirement kept less than half of it, on average.
- In spite of these averages, about one-third of retirees – even those with low pre-retirement amounts – kept less than half their income. Many of these people had very low incomes.
- Since many of the people in this study were not yet 65, their financial situation can be expected to improve once they become old enough to collect Old Age Security benefits.

■ Job stability ... p. 24

- The trend toward more employment in the service sector has not substantially affected overall job stability. However, average job length rose in most industries through the first half of the 1990s, contrary to expectations.
- Job stability is neither uniformly higher nor lower in the service sector than in the goods sector. The

average new job lasted 67 months in public services, 56 in distributive services, 52 in business services, 50 in manufacturing, 32 in consumer services, and 22 in primary industries and construction.

- Rising average job duration is not necessarily a good thing (just as falling average job duration is not necessarily bad). It depends on the cause. For example, lower quit rates, which are associated with a lower hiring rate, had much to do with the increase in job duration. In an uncertain economic environment, workers tend to quit less often, thus lengthening their job tenure.
- Quit rates dropped in business services and public services, both of which underwent substantial restructuring in the 1990s. In contrast, rising job duration in manufacturing was caused equally by drops in the rates for both quits and permanent layoffs. Rising job duration in consumer services was associated with a drop in the permanent layoff rate in that industry.

■ The rise of unionization among women

... p. 30

- From the mid-1960s to the early 1990s, unionization among female workers rose considerably: membership climbed from 320,000 in 1966 to 1.6 million in 1992, and union membership rate or density, from 16% to 30%. Since then these numbers have remained fairly steady.
- In contrast, over the same period union membership among men rose slowly, from 1.6 million to 2.2 million, and density fell slightly, from 38% to 36%. Both levels have fallen somewhat since then.
- As a result of the above-noted movements, almost one in two union members today is a woman, compared with one in six three decades ago.

■ The rise in unionization among female workers is the result of many factors, the most important of which is their increasing presence in the heavily unionized public sector, which had been growing until recently.

■ Other contributing factors include a change in the reporting of membership figures, the growing movement of women into other male-dominated industries or occupations, greater unionization among part-time workers, and increased union presence in certain service industries.

■ What's new?

... p. 45

■ Just released

1999 Canada Year Book

Labour Force Update

Labour Markets, Social Institutions and the Future of Canada's Children

"Can I help you?: The rise in household spending on services, 1986-1996," *Services Indicators*

Characteristics of Dual-earner Families, 1996

Industrial Organization and Concentration in the Manufacturing, Logging and Mining Industries

An Explanation of the Increasing Age Premium

What is Happening to Earnings Inequality and Youth Wages in the 1990s?

■ Upcoming conference

Statistics Canada, Economic Conference '99:
Probing the New Economic Realities

The gambling industry: Raising the stakes

Katherine Marshall

Since *Perspectives* first examined the gambling industry two years ago (Marshall, 1996), growth in this field has continued to outstrip that of most other industries. Gambling has brought both increased revenue and fuller employment to many areas – the result of an ever-increasing number of lottery games, casinos and video lottery terminals (VLTs) in most provinces. And while not every community has embraced the arrival of casinos and VLTs – choosing instead to hold referendums, plebiscites or moratoriums on the issue – most households in Canada participate in and spend money on some form of gambling activity (see *Definitions* and *Industry information*).

This article presents an updated statistical portrait of the gambling industry in Canada. It examines economic output, jobs and government revenue, and provides provincial comparisons.

The “wheeling dealing” 1990s

Gambling has been legal for three decades, but only in the 1990s has it undergone a major surge in growth. Although some provinces² have granted charity casino licences for some time, it was not until the eve of 1990 that the first government casino opened in Winnipeg, followed by one in Montréal three years later. By 1997, with the exception of Newfoundland, Prince Edward Island and New Brunswick, all provinces had legalized permanent charity and/or commercial casinos. This expansion is one reason that one in five households reported spending some money at a casino in 1996.

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Definitions

Gambling operation: Any establishment primarily engaged in legal gambling operations, such as casinos, lotteries and bingos. Horse racing is classified as a commercial spectator sport.

Video lottery terminal (VLT): A coin-operated, free-standing electronic game of chance. Winnings are paid out through a computer-receipt system, as opposed to cash payments from slot machines. Such terminals are regulated by provincial lottery corporations.

Government casino: A government-regulated commercial casino. Permits, licences and regulations for casinos, both charity and government, vary by province. Government casinos, now permitted in several provinces, also vary by the degree of public and private involvement in their operations and

management. Some government casinos are run entirely as crown corporations, while others contract out certain operations – for example, construction, management or services – to the private sector.¹

Gambling revenue: Consists of all revenue from provincial and territorial government-run lotteries, casinos and VLTs, less prizes and winnings. Gambling revenue generated by and for charities, and on Indian reserves, is excluded.

Gambling profit: The net income from provincial and territorial government-run lotteries, casinos and VLTs, after deducting prizes and winnings, operating expenses including wages and salaries, payments to the federal government and other overhead costs.

The first legal VLTs began operating in New Brunswick in 1990. By 1993, every province except Ontario and British Columbia had either open (non-liquor licensed/non-age controlled locations) or restricted access to VLTs.

Canadians like to play games

Even though the odds of winning are low, most Canadians, to judge from the participation rates, appear to enjoy risking a little money on the chance of winning prizes or jackpots. According to the 1996 Family Expenditure Survey³ (FAMEX), 82% of households spent some money on at least one gaming activity: the average annual gaming expenditure for participating households was \$423 (Table 1). Among the four gambling activities for which households were asked to report their spending, government lotteries were the most popular (74%), followed by non-government lotteries

and raffles (39%), casinos and slot machines (17%) and bingos (12%). Average expenditures, however, were somewhat the reverse.⁴ Among participating households, the highest average expenditure was on bingo (\$677); the lowest, on non-government lotteries and raffles (\$70).

Men living alone were more likely than women on their own to spend money on those activities (75%, compared with 69%), and spent more on average (\$416, compared with \$270). As well, men had higher participation rates than women in every game except bingo (4%, compared with women's 12%). Also among one-person households, those with a university degree reported the lowest participation rate (62%) and the lowest average expenditure (\$245). Those with a non-university certificate or diploma had the highest rate (79%) and those with less than a high school education had the highest average expenditure (\$410).

Table 1
Household expenditure on gaming activities

	At least one activity	Gov- ernment lotteries	Other lotteries/ raffles	Casinos and slot machines	Bingos
%					
Proportion of households with gaming expenditures					
All households	82	74	39	17	12
Income group (\$)					
Less than 20,000	67	59	18	8	13
20,000 to 39,999	81	73	32	15	14
40,000 to 59,999	87	78	46	19	12
60,000 to 79,999	88	81	53	19	13
80,000 and over	87	78	54	24	9
One-person households *	71	62	25	13	9
Sex					
Men	75	65	26	14	4
Women	69	60	25	11	12
Education					
Less than high school	68	58	18	10	13
High school graduation **	76	69	29	12	8
Postsecondary certificate or diploma	79	68	37	15	--
University degree	62	50	29	16	--
Average expenditure per spending household			\$		
All households	423	239	70	359	677
Income group (\$)					
Less than 20,000	296	159	39	456	479
20,000 to 39,999	370	216	57	247	623
40,000 to 59,999	444	264	63	315	758
60,000 to 79,999	484	266	72	467	641
80,000 and over	536	285	101	391	1,045
One-person households *	334	193	61	451	526
Sex					
Men	416	264	79	710	464
Women	270	138	47	217	540
Education					
Less than high school	410	208	55	648	643
High school graduation **	319	216	65	375	332
Postsecondary certificate or diploma	257	156	63	275	--
University degree	245	126	59	398	--

Source: Family Expenditure Survey, 1996

* Using one-person households allows examination of individual characteristics. Persons 18 and over were selected as this is the legal gambling age in most provinces.

** May include postsecondary education not completed.

The participation rate for gambling increased with household income until the \$40,000 or more range, where it levelled off to just under 90%. The trend held for the purchase of government and non-government lottery and raffle tickets, and for spending at casinos or slot machines. For example, 18% of households with an average income of less than \$20,000 spent money on non-government lotteries and 8%, on casinos or slot machines. Three times the proportion of households with \$80,000 or more did so: 54% and 24%, respectively. Playing bingo was the only activity to have a negative correlation with income. This percentage decreased as household income increased: 13% of households with less than \$20,000 spent money on bingo in 1996, compared with 9% of households with \$80,000 or more.

Household expenditure on gambling also increased with household income, although participants with higher incomes spent proportionally less than those with lower incomes. For example, among game-playing households, those with incomes of less than \$20,000 spent an annual average of \$296 on these pursuits, representing 2.2% of total household income, while those with \$80,000 or more spent \$536, only 0.5% of total income.

Revenue, GDP and jobs have grown

For 20 years lotteries were the sole source of legal gaming in Canada,⁵ bringing in close to \$2 billion in total revenue by the late 1980s. Growth in lottery revenue levelled off in the early 1990s and then declined, shifting to casinos and VLTs. From 1992 to 1997, total revenue from gambling went from \$2.7 billion to \$6.8 billion. Casinos and VLTs represented 10% of all gambling revenue at the beginning of the period, but accounted for a full 59% of it by 1997 (Chart A). As revenue increased, so too did profits to provincial governments – rising from \$1.7 billion in 1992 to \$3.8 billion in 1997.

The growth in gambling revenue is reflected in the steep increase in economic output and employment in the industry. Between 1992 and 1997, GDP⁶ in the gambling industry increased by 125%, compared with just 14% in all other industries (Chart B). Although this industry still represents a small proportion of the overall economic activity in Canada (0.1% of GDP in 1997), its representation has been increasing. For example, gambling activity accounted for 0.5% of the total increase in GDP between 1992 and 1997.

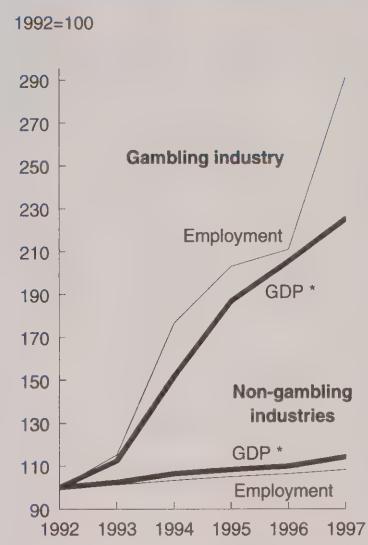
During the same period, employment in this industry increased by almost 200%, up from 12,000 jobs to 35,000 (Chart B). By contrast, a further one million jobs in all other industries between 1992 and 1997 represented just an 8% increase. And although gambling-related jobs represented only 0.3% of all jobs in 1997, their net increase since 1992 (23,000) accounted for 2% of all employment nos.⁷

growth in the five-year period. Furthermore, the growth between 1996 and 1997 (10,000 jobs) accounted for 4% of all job growth that year.

Most are hourly paid, permanent jobs

The majority of workers in the gambling industry in 1997 were women (55%), persons under 35 (61%), and those with high school graduation or less (57%) – groups whose representation in non-gambling industries was lower (Table 2). Full-time employment increased from 69% in 1995 to 77% in 1997, slightly less than the rate in non-gambling industries (81%). And 50% of jobs in this industry were in Ontario, which in 1997 accounted for 39% of all jobs in Canada. This over-representation owes much to the three large government casinos operating in the province, as well as to its 300 roving Monte Carlo charity casinos.⁷

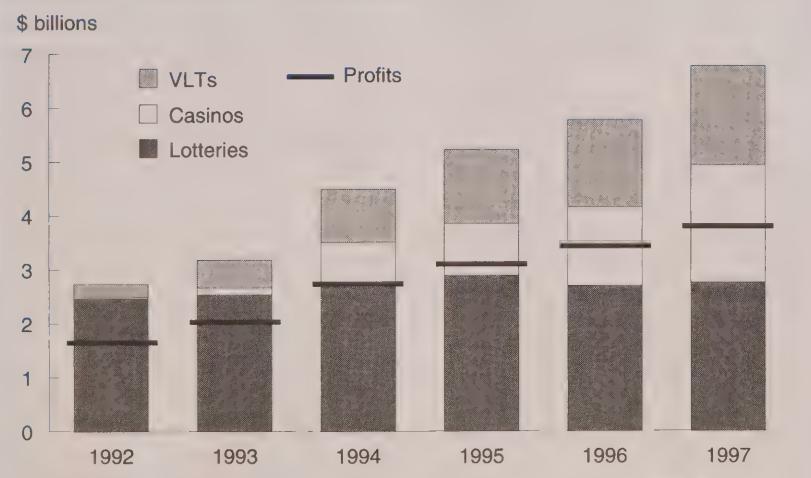
Chart B Gambling outpaced other industries.



Sources: Labour Force Survey;
National Accounts

* The price, at factor cost, of the goods and services produced.

Chart A Gambling revenue * and government profits ** more than doubled between 1992 and 1997.



Source: National Accounts

* Refers to total wagers on lotteries, casinos and VLTs, minus prizes and winnings.

** Refers to net income of provincial governments from total gambling revenue, less operating and other expenses (see Definitions).

Most workers in the gambling industry were paid employees (98%), as opposed to owners of such operations. This compared with 82% of workers in other industries. Some 28% were unionized and 92% were in permanent jobs, compared with 34% and 89%, respectively, for those in non-gambling industries. A full 28% said they usually received tips, whereas only 7% of workers in other industries did so. This reflects the service orientation of most jobs in gambling. Even with tips included, the average hourly wage rate of full-time workers was less than that in other industries. For example, men in full-time gambling jobs earned on average \$13.75 an hour while women earned \$12.87. Workers in non-gambling industries earned \$17.83 and \$14.77, respectively. The wages

Table 2
**Characteristics of workers
 and jobs in gambling and
 non-gambling industries, 1997**

	Gam-bl	Non-
		%
Sex		
Men	45	55
Women	55	45
Age		
15 to 34	61	40
35 and over	39	60
Education		
High school graduation or less *	57	48
Postsecondary certificate or diploma	35	33
University degree	8	19
Work status		
Full-time	77	81
Part-time	23	19
Province/region		
Atlantic provinces	5	7
Quebec	18	23
Ontario	50	39
Prairie provinces	16	18
British Columbia	10	13
Class of worker		
Self-employed	--	17
Paid employee	98	82
Employees		
Union status		
Unionized **	28	34
Non-unionized	72	66
Job status		
Permanent	92	89
Non-permanent	8	11
Usually receive tips		
Yes	28	7
No	72	93
Paid by the hour		
Yes	78	61
No	22	39
Average full-time earnings	\$/hour	
Men	13.75	17.83
Women	12.87	14.77

Source: Labour Force Survey

* May include postsecondary education not completed.

** Includes both union members and non-union members covered by a collective agreement.

Industry information

The Annual Survey of Arts, Entertainment and Recreation has begun to survey the gambling industry separately. In April 1998, the first survey, whose reference year was 1997, covered a sample of gambling establishments drawn from Statistics Canada's Business Register (BR). The survey collected information on revenue, operating expenses, employment, inventories and other business practices. Preliminary data will be available in early 1999.

The sample for the survey was based on the North American Industrial Classification System (NAICS). This coding system will soon replace the 1980 Standard Industrial Classification (SIC) currently used by Statistics Canada, and

will be implemented in stages throughout the Agency. The BR, as well as the annual business surveys, began converting to NAICS in 1997; most monthly and quarterly surveys will begin in 2000, and the census will incorporate NAICS in 2001. Although NAICS will include the main gambling codes in the SIC, it will also allow for a more detailed analysis of the gambling industry as it is broken out into sub-groups (for example, casinos, lotteries and other gambling). Furthermore, the new coding system will allow for comparisons with the United States. Currently, the SIC system in the United States does not code gambling separately.

in gambling jobs reflect, in part, the lower average age and education levels of workers in the industry.

Provincial profits vary

Profits from gambling increased in every province and territory from 1992 to 1997 (Table 3).⁸ Alberta experienced the largest percentage increase (414%), as gambling profits rose from \$125 million to \$643 million; Saskatchewan posted the second highest percentage increase (up 253%). Ontario had the largest dollar increase (\$712 million), from \$530 million in 1992 to \$1.2 billion in 1997. Quebec also experienced a gain of more than half a billion dollars in five years (\$581 million). At 10%, British Columbia had the smallest percentage increase in provincial gambling profits since 1992, largely because this province, along with the two Territories, still had not permitted government casinos and VLTs by 1997.

Furthermore, with the exception of British Columbia, gambling profits as a proportion of all government revenue increased across the country. In 1992, gambling profits represented

less than 3% of total government revenue in all provinces. By 1997, half of all provinces had reached at least 3%, two having surpassed 4% (Alberta and Manitoba).

As both gambling revenue and profits have increased, so too has the annual average expenditure⁹ on gambling in all provinces except British Columbia. Quebec adults spent more, on average, than those in other provinces in 1997 (\$348). Prince Edward Island had the second highest average (\$340), followed by New Brunswick and Alberta (both at \$328). Alberta had the largest increase (from \$99 in 1992 to \$328 in 1997), whereas British Columbia experienced the only decline, from \$157 to \$153.

Summary

A previous article in *Perspectives* showed that with the legalization of gambling and the introduction of government lotteries, this industry registered steady growth throughout the 1970s and 1980s. This update demonstrates that even steeper gains in employment, revenue and profits have occurred since the advent of casinos and VLTs in the 1990s. □

Table 3
Provincial profits* from gambling

	Availability in 1997				Gambling profits						
	Lotteries	Government casinos	Other casinos	VLTs	Expenditure per capita (18** and over)		Total			Share of total revenue†	
					1992	1997	1992	1997	Change	1992	1997
Nfld.	✓			✓	151	243	43	75	74	2.3	3.6
P.E.I.	✓			✓	236	340	8	13	63	1.8	2.4
N.S.	✓	✓		✓	200	296	69	102	48	2.6	3.4
N.B.	✓			✓	224	328	48	68	42	1.9	2.1
Que.	✓	✓		✓	134	348	473	1,054	123	1.6	3.0
Ont.	✓	✓			109	300	530	1,242	134	1.3	2.6
Man.	✓	✓		✓	126	310	105	211	101	2.4	4.1
Sask.	✓	✓		✓	76	275	40	141	253	1.0	2.7
Alta.	✓		✓	✓	99	328	125	643	414	1.1	4.2
B.C.	✓		✓		157	153	239	262	10	1.6	1.2
Y.T./N.W.T.	✓				72	75	-	1	100	-	0.3

Sources: National Accounts; Public Institutions (Financial management statistics); post-censal population estimates

* Total gambling revenue less operating and other expenses (see Definitions).

** Persons 18 and over were selected as the denominator as this is the legal age of gambling in most provinces; the numerator is total gambling revenue.

† Refers to the fiscal year, and excludes transfer payments from the federal and local governments.

Notes

1 For more information on the ownership and operations of casinos, see Eadington (1994).

2 Since an agreement was signed in 1979 between the federal government and the provinces, legal gambling has been provincially controlled and regulated.

3 Starting in 1996, FAMEX introduced four additional questions to its gaming activity section, which already included a question on government-run lotteries. Annual data on household expenditure will now be available for casinos and slot machines, bingos, non-government lotteries and raffles, and winnings from games of chance. For a more detailed analysis of the 1996 data see Marshall (1998).

4 For whatever reason, households consistently under-report the amount of money they spend on government lottery tickets per year. For example, according to the 1995-96 annual reports produced by provincial and regional lottery corporations, sales figures for all government lottery tickets equalled \$5.5 billion for this period. This total is almost triple the \$1.9 billion reported by all households on lottery ticket expenditures in 1996. However, FAMEX excludes lottery spending by residents of institutions, reserves, prisons, and the two Territories, as well as

from businesses and tourists, although it does include money spent by Canadians outside the country. In any case, the gap still shows a considerable under-reportage.

5 Besides the specified lottery schemes listed in the criminal code, horse racing is the only other legal form of gambling in the country. Revenue from this government-regulated activity peaked in 1989 at \$563 million, and has fallen steadily since, reaching an 18-year low of \$348 million in 1997.

6 Gross domestic product (GDP) for the gambling industry refers strictly to wagering activities, such as lottery ticket sales, VLT receipt sales and betting at casinos. Other economic spin-offs related to the industry, such as hotel and restaurant business, security services, or building and equipment maintenance, are not included.

7 In the spring of 1998 Ontario stopped allowing roving charity casinos as the government took steps to permit and license up to 44 permanent charity casinos in the province.

8 Although the apportioning of gambling profits varies, most provinces report spending millions on, for example, hospitals, voluntary social service organizations, and/or sport, recreational and cultural projects.

9 The average gambling expenditure per adult 18 years or over by province includes money spent by tourists living outside the

host province; conversely, this calculation does not include money spent on gambling activities outside a province.

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Family income inequality, 1970-1995

Abdul Rashid

Income is related to a number of factors, among them, education, work experience and asset holdings. As these are not distributed uniformly across the population, an equal distribution of income cannot be expected. Even so, the degree of inequality in income distribution concerns many researchers, policy makers and interest groups. This article examines the extent of, and changes in, family income inequality between 1970 and 1995 (see *Definitions*).

Family structure

Husband-wife families in which the wife reports employment income (dual-earner families)¹ have higher incomes than others. A small proportion of these families have very low incomes and a significant proportion have very high incomes. In 1995, only about 5% had a total income of less than \$20,000, while 14% had a total income of at least \$100,000. In contrast, husband-wife families in which the wife has no earned income have, in general, smaller incomes. In 1995, while less than 5% had a total income of \$100,000 or more, 21% had less than \$20,000.

These different income distributions are evident in the Lorenz curves for the two groups (Chart A). The curve representing dual-earner families lies closest to the diagonal; hence, these families experienced the least income inequality. The curve for families in which the wife had no earned income lies farther away, displaying a greater degree of inequality of income distribution.

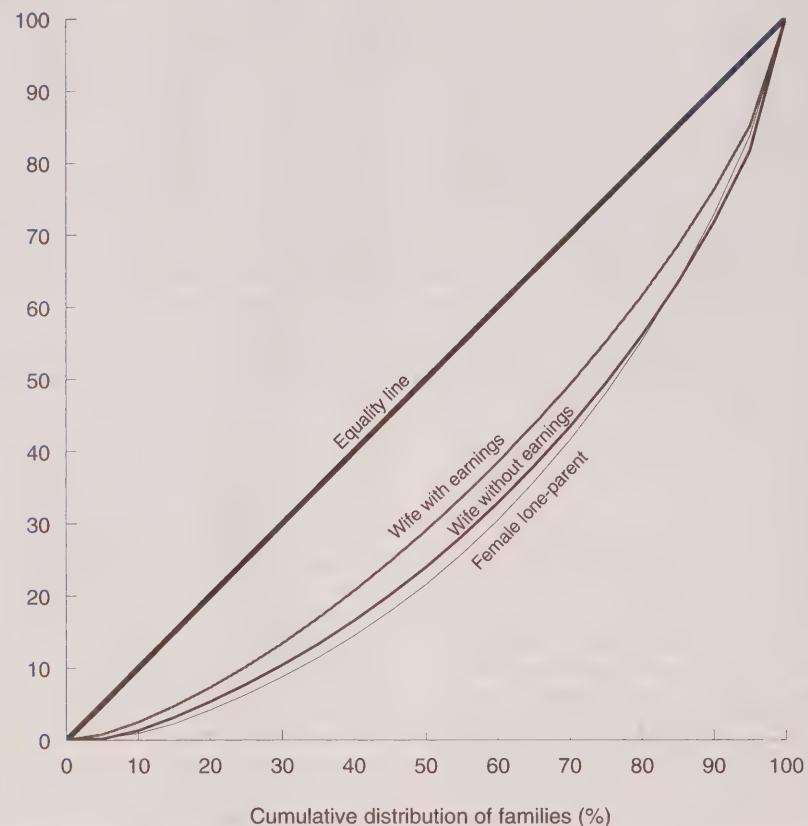
The Lorenz curve for female lone-parent families shows the most inequality of income distribution.²

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Chart A

The Lorenz curve reveals income inequality among families.

Cumulative distribution of family income (%)



Source: Census of Canada, 1996

The Lorenz curve provides a simple visual picture of income inequality. The horizontal axis represents the cumulative percentage of income units (families) arranged in order of income size, while the vertical axis represents the cumulative share of

these units in the aggregate income. If all families received the same income, their Lorenz curve would coincide with the diagonal. The farther the curve from the diagonal, the more unequal the income distribution.

This is to be expected, since these families consist not only of those headed by young mothers (under 45 years of age) with small children, but

also of those headed by older lone mothers (45 years and over) with grown-up children. The first group's average total family income in 1995

was \$21,200. The second group's was \$37,600 (77% higher), enhanced substantially by the income of adult children.

Transfers and taxes

Government transfer payments augment, in general, the incomes of families at the lower end of the income spectrum, thus reducing the gap between their incomes and those of families at the upper end. Personal income taxes have a similar effect on income distribution, since the average rate of such taxes is significantly higher for families in the upper income brackets. Both these measures change income distributions.

Without government transfer payments and income taxes, inequality of income distribution among all families would be greater (Chart B). Expressed visually, the effect of government transfer payments is clear: the Lorenz curve excluding government transfer payments from total family income lies below the curve for total income and farthest from the income equality line – indicating the most income inequality. Without transfer payments, the very small share of lower income families in the aggregate income becomes even smaller, while that of families in the upper income groups increases.

In contrast, the Lorenz curve for the distribution of family income after taxes lies above the total income curve.³ By reducing the gap between the shares of the lowest and highest income groups, taxes shift the Lorenz curve closer to the income equality line.

Changes in inequality

The Lorenz curve enables comparison of income inequality among a limited number of groups, especially if the differences are substantial. However, when the curves not only lie close to each other but also cross each other, their interpretation becomes difficult.⁴ Therefore, a quantitative measure is needed to provide

Definitions

A **census family** is a now-married or common-law couple (with or without never-married children of either or both partners), or a lone parent of any marital status, with at least one never-married child living in the same dwelling.

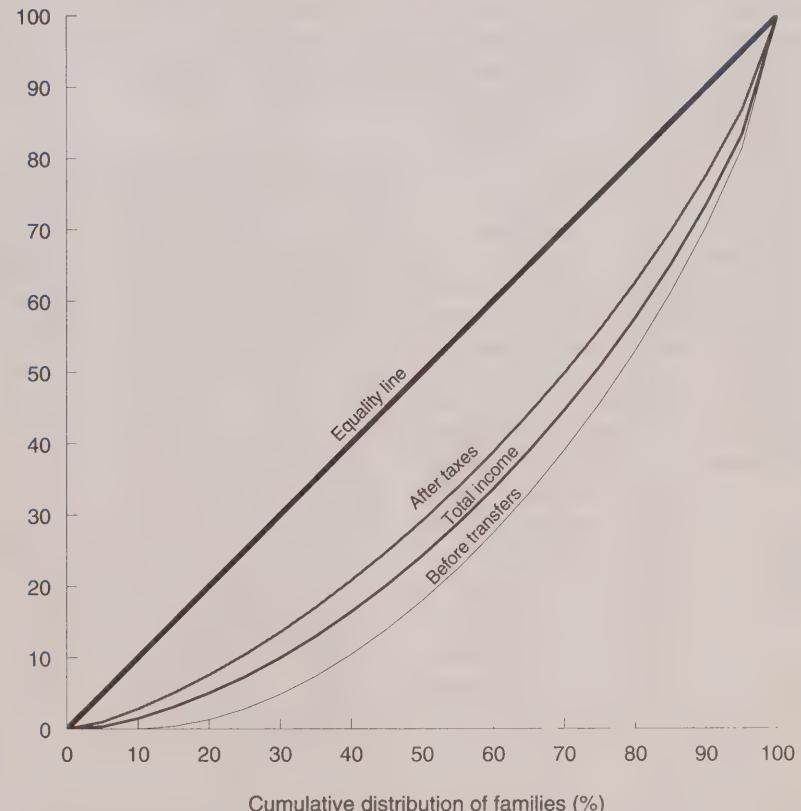
Family income is the sum of the total incomes of all members 15 years and

over during the calendar year preceding the census. It includes wages and salaries, income from farm and non-farm self-employment, government transfer payments, investment income, retirement pensions and other money income.

Earnings (or employment income) consist of wages and salaries and farm and non-farm self-employment income.

Chart B
Government transfers and income taxes reduce inequality.

Cumulative distribution of family income (%)



Source: Census of Canada, 1996

an estimate of differences in income inequality among several groups, or changes in inequality over time. The most widely known and used measure for this purpose is the Gini coeffi-

cient.⁵ (This number lies between zero and one, denoting, respectively, total equality [all families receive equal income] and total inequality [one family receives all income].)

Over 25 years, inequality in overall family income increased by 2 percentage points, the Gini coefficient rising from .352 in 1970 to .373 in 1995 (Table). On the whole, income inequality changed little during times of economic stability – 1970 to 1980 and 1985 to 1990. Most of the increase occurred following the two recessions – in the early 1980s and again in the early 1990s (see *Using the Gini coefficient*).

During the period under review, changes in social attitudes, family laws and social security provisions led to significant changes in the structural composition of families. Between the 1971 and 1996 Censuses, the total population increased by 34% while the number of census families increased by 55%. The fast growth of female lone-parent families contributed considerably to this difference in growth rates. And the aging of the population led to an increase in the proportion of elderly families.

Irrespective of changes in income levels, these changes resulted in a greater proportion of families at the lower rungs of the income ladder and, therefore, greater overall inequality. The sharp increase in the participation of wives in the labour market was another major development during the period under review. The structural changes, coupled with changes in economic activity, have had strong, sometimes conflicting influences on income distributions.

Income inequality among families of different characteristics followed the overall pattern; that is, it increased following recessionary periods and remained stable otherwise. However, the degree of inequality and the changes within various groups over the period were greater than the total change.

Income inequality among dual-earner families increased consistently from 1970 to 1995. At the beginning of the period, the Gini coefficient for the income distribution of these families

was lowest, at .270. Although still lowest in 1995, it had increased by 4 percentage points. Compared with an overall growth of 55%, families with earning wives increased by 132% over the period. Because a group loses some of its homogeneity as it grows, the increase in income inequality among these families is not surprising.

In the case of families in which the wife had no earned income, inequality declined somewhat in 1980, but moved back to the 1970 level (.376) in 1990 and then increased to .383 in 1995. Inequality among husband-wife families overall was identical in 1970 and 1990 (.338), in spite of a significant increase in the inequality among dual-earner families. This was primarily the effect of the growing proportion of the latter families, whose income distribution displayed the

lowest Gini coefficient in 1995. However, income inequality among all husband-wife families had moved up over a percentage point by then.

Inequality of income distribution among male lone-parent families moved with the business cycle. It declined between 1970 and 1980 and between 1985 and 1990, and increased between 1980 and 1985 and between 1990 and 1995, reflecting both recessions. The Gini coefficient for their income distribution in 1995 (.383) was about the same as in 1970 and identical to that of husband-wife families in which the wife had no employment income.

The largest decline in income inequality occurred among female lone-parent families. Beginning at .440 in 1970, the Gini coefficient for their income distribution dropped

Using the Gini coefficient

It would be useful to note some features of Gini ratios before proceeding further. First, the Gini coefficient never reaches its limits of 0 and 1. It usually ranges between .2 (low inequality) and .5 (high inequality).

Second, changes in the index take place only when the relative shares of total income change for different groups. For instance, assuming two equal groups of families, if one group receives 20% of all income and the other group, the remaining 80%, the Gini coefficient will be .300. If the share of the first group increases by one percentage point to 21%, the Gini coefficient will decline by one percentage point, to .290. The coefficient will increase to .310 if the group's share in total income declines to 19%.

Third, changes in income inequality take place at a very slow pace. A change of one percentage point, for example, from .345 to .355 or .335, would be considered significant.

Fourth, a change in the general level of income would not necessarily result in a change in inequality. For example,

other things being equal, an increase or decrease of 10% in income shared equally by all income units will not change the Gini ratio. The ratio will change only if income changes have not been uniform across different groups, thus leading to a change in their relative shares in total income.

Fifth, even if income levels do not change, demographic and structural changes will alter the shares of different groups, thus affecting the overall income distribution. This will result in changes to Gini ratios.

Finally, these changes take place concurrently. Some of these may reinforce each other and affect overall inequality; others may cancel the effect of each other, leaving the inequality measure unchanged.

In view of these factors, caution has to be exercised in the interpretation of changes in Gini coefficients over time. To help keep the ratios in perspective, demographic and structural changes and changes in average real incomes of families between 1970 and 1995 are noted for different groups⁶ (Table).

Table

Gini coefficients for the income distribution of families by selected characteristics

	Change: 1970 to 1995		Gini coefficient				
	Number of families	Real family income	1970		1980		
			1970	1980	1985	1990	1995
%							
All families	55.1	32.0	0.352	0.351	0.359	0.357	0.373
Family structure							
Husband-wife families	46.2	36.8	0.338	0.332	0.339	0.338	0.352
Wife with employment income	132.4	37.8	0.270	0.284	0.294	0.298	0.309
Wife without employment income	-12.7	9.1	0.376	0.371	0.371	0.375	0.383
Male lone-parent families	93.3	19.3	0.389	0.376	0.386	0.375	0.383
Female lone-parent families	155.5	19.1	0.440	0.435	0.425	0.405	0.406
Under age 45	243.1	31.3	0.438	0.432	0.417	0.393	0.393
45 and over	84.3	29.5	0.405	0.385	0.380	0.358	0.358
Age of husband/lone parent							
15 to 24	-36.5	-21.3	0.309	0.335	0.371	0.376	0.406
25 to 34	26.1	16.9	0.291	0.303	0.315	0.316	0.346
35 to 44	83.3	28.4	0.323	0.324	0.326	0.325	0.348
45 to 54	63.6	39.1	0.343	0.338	0.343	0.338	0.351
55 to 64	44.5	34.1	0.382	0.364	0.384	0.379	0.387
65 and over	104.5	47.5	0.427	0.376	0.367	0.373	0.358
Province/territory							
Newfoundland	44.5	49.7	0.381	0.353	0.360	0.356	0.374
Prince Edward Island	48.3	57.0	0.374	0.346	0.340	0.330	0.331
Nova Scotia	41.5	36.5	0.353	0.340	0.350	0.344	0.355
New Brunswick	48.4	39.9	0.350	0.343	0.352	0.346	0.358
Quebec	44.1	23.6	0.351	0.350	0.357	0.351	0.367
Ontario	56.1	30.4	0.332	0.342	0.349	0.355	0.374
Manitoba	25.2	34.8	0.364	0.351	0.354	0.350	0.356
Saskatchewan	20.9	56.9	0.406	0.371	0.372	0.358	0.357
Alberta	88.1	39.3	0.367	0.354	0.364	0.355	0.366
British Columbia	89.7	31.1	0.336	0.346	0.357	0.353	0.373
Yukon	102.3	28.2	0.320	0.318	0.345	0.318	0.337
Northwest Territories	128.5	69.5	0.421	0.379	0.380	0.384	0.393
Government transfer payments and personal income taxes							
Total income	...	...	0.352	0.351	0.359	0.357	0.373
Income before transfers	...	...	0.388	0.401	0.425	0.425	0.458
Income after taxes*	...	...	0.316	0.293	0.304	0.295	0.300

Sources: Census of Canada; Survey of Consumer Finances (SCF)

* The coefficients for income after tax are derived from the data collected by the SCF. See notes 3 and 8.

steadily over the years. The large reduction in the 1980s can be attributed to the growth in their incomes in the second half of that decade. Although the recession of the early 1990s had a negative effect on the incomes of these families, income inequality among them remained virtually unchanged between 1990 and 1995, at .406.

The degree of income inequality among families headed by female lone parents under age 45 was high over the period. In 1970, the Gini coefficient for their income distribution exceeded that of other families, at .438. Although still highest, it dropped between 1980 and 1990 to .393, where it remained in 1995. Families headed by female lone parents aged 45 or

over experienced a decline of about 5 percentage points in income inequality. The Gini coefficient for their income distribution decreased from .405 in 1970 to .358 in 1990, with no further change in 1995.

By age of husband or lone parent, all families except the elderly saw an increase in income inequality between

1970 and 1995. Young families (husband or parent aged 15 to 24) experienced the largest increase over the period. The Gini coefficient for their income distribution increased by nearly 10 percentage points, from .309 in 1970 to .406 in 1995. Like husband-wife families in which wives had no earned income, the number of young families also decreased. However, this is the only group whose average real family income declined between 1970 and 1995. The earnings of young persons have been more adversely affected by economic recessions than have those of other age groups.⁷ This is reflected in the increasing Gini coefficients for their income distribution.

Families in the next age group (25 to 34 years) also experienced sizeable increases in income inequality, although their Gini coefficient remained the lowest of all age groups.

The Gini coefficient for elderly families was highest, at .427, in 1970. It declined by 5 percentage points between 1970 and 1980, and by another point between 1980 and 1985, to .367. Although it increased between 1985 and 1990, it decreased to .358 in 1995. The large drop in the 1970s was the result primarily of major improvements in social security. That inequality among these families is still greater than among other age groups is not surprising. Families in the older group are not as homogeneous as the label "65 years and over" might suggest. While the main sources of income for many are old age pensions and other transfer payments, the group also includes many families that may be active in the labour market or that may be enjoying large retirement benefits and investment income.

Provincial picture

Between 1970 and 1995, real income of all families increased, on average, by 32%. Provincially, these increases ranged from 24% in Quebec to 70% in

the Northwest Territories. Family income inequality increased, to varying degrees, in the areas that experienced below average increases.

Throughout the period, the two Territories showed extreme positions. The Gini coefficient for families in the Yukon was second lowest at .337 in 1995, while that in the Northwest Territories was highest at .393 (Table).

The experience of the four provinces in the Atlantic region was mixed. Family income inequality declined between 1970 and 1995 in Newfoundland and Prince Edward Island, while it eventually returned to 1970 levels in Nova Scotia and New Brunswick after the last recession. The only other province experiencing a significant drop in income inequality was Saskatchewan, where the Gini coefficient decreased from .406 to .357.

Quebec's position remained virtually unchanged between 1970 and 1990. Then the Gini coefficient increased from .351 to .367 in 1995. In contrast, income inequality in Ontario grew consistently over the years, with the Gini coefficient rising from .332 in 1970 to .374 in 1995. The only other province experiencing an increase of that magnitude was British Columbia, where the Gini coefficient rose from .336 to .373.

Role of transfer payments and taxes

The effect of government transfer payments and personal income taxes is evident in the Gini coefficients (Table). The coefficient for total income remained below .360 between 1970 and 1990, and then increased to .373 between 1990 and 1995.

The inequality of income distribution would have been significantly greater in each year considered had it not been for government transfer payments. The Gini coefficient would have been .458 as opposed to .373, a difference of over 8 percentage points. More important, inequality

would have increased significantly over the period. The Gini coefficient (and, therefore, inequality of income) would have risen by 7 percentage points without government transfer payments, instead of 2 points.

Personal taxes further reduced income inequality. In 1971, the Gini coefficient for the distribution of income after tax was .316.⁸ Although small increases followed the two recessions, the index dropped to .300 in 1995, over 7 percentage points below the Gini coefficient for total income. Furthermore, while inequality in the distribution of total income increased over the period, that of income after tax declined.

The combined effect of these two measures – government transfer payments and personal income taxes – has not only substantially reduced income inequality, it has done so to an increasing degree over the years. In 1995, the difference in the Gini coefficients for income before transfers (.458) and after taxes (.300) was nearly 16 percentage points.

Summary

During the period under review, significant demographic and structural changes took place. The number of dual-earner, female lone-parent and elderly families increased substantially. Although average family income increased, two recessions also occurred. These developments had both positive and negative effects on income inequality. Income inequality among families increased between 1970 and 1995 as a result of the recessions of the early eighties and nineties. It increased significantly among dual-earner families, young families and families in Ontario and British Columbia. It declined among female lone-parent families, elderly families and families in Saskatchewan and the Northwest Territories. Both government transfer payments and personal income taxes have played a major role in reducing income inequality. □

■ Notes

1 In 1995, only 8% of families with earning wives had husbands with no employment income; in the remaining 92%, both spouses were earners.

2 The Lorenz curve for male lone-parent families was almost identical to that of husband-wife families in which the wife had no employment income.

3 The census does not collect information on personal taxes. The curve for income after tax is derived from the data collected in the annual Survey of Consumer Finances. While the income and family concepts are identical in the census and the survey, the latter does not cover the two Territories. However, this difference is not significant at the national level. The survey publishes data on different income concepts in its annual publications. (See, for example, text Table VI in Statistics Canada, 1998.)

4 For example, income inequality is clearly greater among female lone-parent families than among husband-wife families

in which the wife had no earnings (Chart A). However, the two curves cross at a point that indicates a greater concentration of income at high levels among the latter families.

5 The Gini coefficient is associated with the Lorenz curve. It expresses the area between the diagonal and the Lorenz curve as a proportion of the area under the diagonal.

6 An upcoming article in *Perspectives* will examine the changes in the total income shares of different family groups between 1970 and 1995, along with changes in the composition of these groups by different family characteristics.

7 See *The Daily* (Statistics Canada, Catalogue no. 11-001-XPE) May 12, 1995 for details.

8 The coefficient relates to 1971 incomes. The Survey of Consumer Finances was not undertaken to collect 1970 incomes. (See also note 3.)

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Income transition upon retirement

Dave Gower

With the aging of the population, the number of Canadians who have retired from work and are receiving pensions is rising steadily. Recipients of Canada and Quebec Pension Plan (C/QPP) benefits alone rose from 3.0 million in 1990 to 3.9 million in 1995 (Revenue Canada, 1997).

Finance Canada has stated that "between 60% and 70% of pre-retirement earnings is generally considered to be sufficient to avoid serious disruption of living standards," although the figure need not be as great for those with higher incomes (Department of Finance, 1995).¹

This article examines the situation of people who retired in the first half of the 1990s to see how well their retirement income has replaced their former income.²

An elusive concept

Not every worker experiences a straightforward transition from work to leisurely retirement. For example, one person might retire and draw a pension, then supplement that source with earnings from a part-time job. Another might become increasingly unable to meet the physical demands of a job and gradually reduce activity without ever officially retiring. Someone else might lose a long-term position before pensionable age and begin searching for another. Given the variety of possible scenarios, any study of retirement will necessarily reflect the focus and scope of its data source – in this case, Statistics Canada's Longitudinal Administrative Databank (see *Data source and concepts*).

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Slightly under 200,000 retirees met the criteria to be included in this study. About one-third declared \$40,000 or more in 1992 (their "pre-retirement income"), and one-quarter under \$20,000. Since earnings typically peak during the latter part of one's career (Saint-Pierre, 1996), it is not surprising that retirees are better off than taxfilers as a whole, only 18% of whom declared total 1992 income of \$40,000 or more (Revenue Canada, 1994).

Men outnumbered women (113,000 versus 81,000). This reflects men's more frequent involvement in the labour force prior to the 1990s.

Low pre-retirement incomes were much more common among women than men (Table 1). In fact, 41% reported less than \$20,000 in 1992, two-and-a-half times the proportion for men (16%). The majority of retirees in this category had from \$10,000 to \$19,999 per year.

At the other end of the scale, almost half the men in the study reported an income of \$40,000 or more in 1992, compared with 16% of women. Some 9% of men and 2% of women had \$70,000 or more.

Income drops at retirement

Overall, the adjusted⁵ 1995 income of retirees was 58% of their pre-retirement income (Table 2). Retirees with low 1992 incomes (under \$20,000) did proportionately better – with a replacement ratio of 81% – than those whose pre-retirement incomes were \$20,000 to \$39,999 or \$40,000 and over (61% and 54%, respectively). However, in spite of the higher ratios, people with low pre-retirement incomes were still considerably worse off after retirement, with an average 1995 income of just \$9,400 (compared with \$18,100 and \$32,300) (Table 3).

Table 1
Retirees by sex and 1992 (pre-retirement) income

	Both sexes	'000		Both sexes	% Men Women	
		Men	Women		Men	Women
Total	194	113	81	100	100	100
Under \$20,000*	51	18	33	26	16	41
Under \$10,000*	18	7	12	9	6	14
\$10,000 to \$19,999	33	12	22	17	10	27
\$20,000 to \$39,999	78	44	35	40	39	43
\$20,000 to \$29,999	39	20	20	20	17	25
\$30,000 to \$39,999	39	24	15	20	22	18
\$40,000 and over	64	51	13	33	45	16
\$40,000 to \$49,999	26	19	7	13	17	8
\$50,000 to \$69,999	26	21	6	14	19	7
\$70,000 and over	12	11	1	6	9	2

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

Table 2

Average pre-retirement income and percentage of income after retirement in 1995, by sex and 1992 income

	Pre-retirement income			Income replacement ratio			
	Both sexes		Men	Women	Both sexes		Men
	\$			%			Women
Total	35,100	41,500	26,100	58	57	61	
Under \$20,000*	11,600	11,300	11,800	81	96	74	
Under \$10,000*	5,200	4,400	5,700	147	217	115	
\$10,000 to \$19,999	15,100	15,300	15,000	69	75	65	
\$20,000 to \$39,999	29,900	30,600	28,900	61	61	60	
\$20,000 to \$29,999	25,100	25,200	24,900	62	64	59	
\$30,000 to \$39,999	34,700	34,800	34,500	60	60	60	
\$40,000 and over	60,200	61,800	54,200	54	53	56	
\$40,000 to \$49,999	44,700	44,700	44,500	59	59	58	
\$50,000 to \$69,999	58,200	58,100	57,400	56	56	56	
\$70,000 and over	98,900	99,200	88,700	45	44	48	

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

Workers with pre-retirement incomes under \$10,000 tended to gain financially when they retired. This is partly because Old Age Security (OAS) is payable regardless of previous employment; another reason may be that some people may experience a sharp drop-off in earnings just prior to retirement. This may lower the pre-retirement earnings recorded in this study, without proportionately reducing the pension entitlement (see *Income stream*).

Conversely, replacement ratios for those with \$70,000 and over in 1992 averaged less than 50%. However, their post-retirement incomes were still well above those of workers with less generous incomes prior to retirement.

Slightly over one-quarter of retirees had replacement ratios of 75% or more (Table 4). Not surprisingly, such high ratios were concentrated among those with low pre-retirement incomes (under \$20,000). Only one in six retirees with a pre-retirement income of \$40,000 or more had a replacement ratio of 75% or more.

About one-third of retirees in each income group had replacement ratios of less than 50%. Indeed, many retirees' ratios were well below 50%; for them, the average ratio was 35%.

Of particular concern are the one-third of retirees with pre-retirement incomes below \$20,000 who failed to maintain half after retirement. This subset, accounting for just under 10% of retirees, recorded an average 1995 income of only \$4,100.⁷ Many of them will see a marked improvement after they begin receiving OAS benefits (at age 65).

Age of retirement makes some difference

Retirees aged 60 or over had slightly higher replacement ratios than those under 60 (60% versus 57%). This global figure, however, hides substantial differences among the various sub-groups examined. For example, younger retirees at the low end of the income scale received only 69% of their pre-retirement income, in contrast to the older group's 90% (Table 5).

On the other hand, retirees with incomes of \$40,000 or over were actually a little better off retiring younger (replacing 55% of their income, compared with 53% for those older). As

Table 3
Average post-retirement income in 1995 (1992 dollars) by sex and 1992 income

	Both sexes	Men	Women
Pre-retirement income		\$	
Total	20,500	23,800	15,900
Under \$20,000*	9,400	10,800	8,700
Under \$10,000*	7,700	9,500	6,600
\$10,000 to \$19,999	10,400	11,500	9,800
\$20,000 to \$39,999	18,100	18,700	17,300
\$20,000 to \$29,999	15,500	16,100	14,800
\$30,000 to \$39,999	20,700	20,800	20,700
\$40,000 and over	32,300	32,800	30,200
\$40,000 to \$49,999	26,300	26,400	26,000
\$50,000 to \$69,999	32,800	32,800	32,300
\$70,000 and over	44,300	44,100	42,800

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

Table 4
Distribution of retirees by sex, 1992 income and income replacement ratio in 1995

	Retirees	Income replacement ratio			'000
		Total	<50%	50%-74.9%	
Pre-retirement income					
Both sexes	194	100	35	38	26
Under \$20,000 *	51	100	33	22	45
\$20,000 to \$39,999	78	100	35	42	23
\$40,000 and over	64	100	38	47	15
Men	113	100	34	41	25
Under \$20,000 *	18	100	27	18	55
\$20,000 to \$39,999	44	100	33	43	24
\$40,000 and over	51	100	38	47	14
Women	81	100	36	35	28
Under \$20,000 *	33	100	36	24	40
\$20,000 to \$39,999	35	100	37	41	22
\$40,000 and over	13	100	36	49	15

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

noted elsewhere (Gower, 1997), retirement before age 60 tends to be much more common in certain industries (utilities and government services, for example).⁸ Many employers in these industries provide relatively high salaries as well as an opportunity to retire early with reasonable pension benefits.

Women's retirement income reflects career patterns

Overall, women's retirement income replacement ratio was slightly higher than men's (61% versus 57%; Table 2). This does not mean that women were better off after retirement. On the contrary, they were much more likely to be in the lower income groups, which had higher replacement ratios.

The situation is more complex if considered by income group. Women with less than \$20,000 in 1992 had average income replacement ratios much lower than men in that category. Those with less than \$10,000 revealed the greatest difference: 115%, compared with 217% for men (Table 2). Perhaps this is because more men perform sometimes dangerous blue-collar work, incurring higher injury rates. This may in turn have reduced their measured pre-retirement earnings relative to income after retirement.

Women in the intermediate and higher ranges had average replacement ratios similar to men's, a finding somewhat surprising in light of the career interruptions experienced by many with children. Such a reduction in lifetime employment history would be expected to reduce pension entitlements, since benefit levels in many plans (including C/QPP) are determined by lifetime contribution history, rather than earnings immediately before retirement. One compensating factor may be that women tend to be concentrated in such fields as health, education and government services, which offer relatively generous pension benefits.

Table 5
Age of retirement and income replacement ratio in 1995, by sex and 1992 income

	Retirees	Income replacement ratio			'000		
		Total	Under age 60	60 and over			
Pre-retirement income							
Both sexes	194	80	113	58	57	60	
Under \$20,000 *	51	23	28	81	69	90	
\$20,000 to \$39,999	78	29	49	61	57	62	
\$40,000 and over	64	28	36	54	55	53	
Men	113	44	69	57	57	58	
Under \$20,000 *	18	7	11	96	84	102	
\$20,000 to \$39,999	44	15	29	61	59	62	
\$40,000 and over	51	22	29	53	55	52	
Women	81	37	44	61	56	64	
Under \$20,000 *	33	16	17	74	63	83	
\$20,000 to \$39,999	35	15	20	60	55	63	
\$40,000 and over	13	6	7	56	54	57	

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

Data source and concepts

This study uses data from the Small Area and Administrative Data Division's Longitudinal Administrative Databank (LAD), a random sample of 10% of all taxfilers in Revenue Canada's records. The LAD contains longitudinal information on income from various sources, but does not measure work activity directly. Therefore, the definition of retirement is based on the type of income reported by taxfilers.

The data set covers persons who filed tax returns from 1992 to 1995.³ Although the data cannot answer a number of questions about future pension receipts, they do provide a starting point for future data series. Most people who filed in 1992 can be followed over the next several years, regardless of their financial circumstances. (After 1990, the GST rebate encouraged people to file even if their income was minimal.)

In order to be included in this study, taxfilers had to be at least 55 in 1992, and at least half of their 1992 income had to be from employment (Figure). (In fact, an average 85% came from employment.) Their pre-retirement income is measured as of 1992.

The study population has been divided into two age groups: those born before 1933 (who were at least age 62 by 1995), and those born between 1933 and 1937 (who were no younger than 55 in 1992). This split approximates the average age of retirement derived from the Labour Force Survey, which was 62.4 for men and 61.8 for women (Gower, 1997).

Women without a spouse present⁹ had higher pre-retirement incomes and higher income replacement ratios than women who were living with a spouse. For example, almost one-quarter had pre-retirement incomes of \$40,000 and over, almost twice the percentage of other women (Table 6). Furthermore, their average income replacement ratio was between 6 and 12 percentage points higher, depending on income group. Survivor's benefits

Taxfilers must also have had some employment income in 1993. This should exclude people who retired during 1992 (and hence would have received pay for only part of the year) and keep any departure pay (for example, severance benefits) from being included in the 1992 income.

Since the Revenue Canada tax file contains no information on work activities, it is not known when each person last worked. By definition, those in the study population will have some employment income in 1993 but none in 1995. From this, it follows that they last worked in either 1993 or 1994. People born in 1933 who last worked in 1993 would be age 60 at retirement; if they left work in 1994, they would be 61.

Finally, by 1995 retirees' employment income had to be zero.⁴ This removes from the study persons who enter partial retirement, that is, continue to work part time or intermittently. Among other differences, such people tend to be younger than those who retire fully.

Study population

	1992	1993	1994	1995
Taxfiler	Yes	Yes	Yes	Yes
Earnings	At least 50% of total	Not zero*	... Zero	... Zero
Age	At least 55			

* Could be negative.

Because of the restrictions imposed on the study population, the number of retirees measured should not be taken as a measure of the number of people retiring between 1992 and 1995. For an estimate of this, see Gower (1997).

Tax data impose limitations

Revenue Canada categorizes various income sources according to legal requirements, which are not always optimum for statistical purposes. For example, RRSP cash-ins are included in income, even though they are a combination of accumulated interest plus liquidation of principal. Liquidation of other assets (for example, proceeds from the sale of the primary residence), is not included in the measure because it is not taxable.

Persons with total 1995 (that is, post-retirement) income exceeding \$100,000 were excluded from the study. Even though they numbered only a few hundred, their incomes are large enough to distort averages.

Another necessary limitation of the data source is its lack of family income information. If retirees have other family members with income (for example, working spouses), their economic circumstances after retirement may well be better than their personal income statistics indicate.

and late husbands' estates may increase incomes and/or replacement ratios for widows. Information on source of income would be needed to separate this.¹⁰

Provincial patterns

Because people sometimes move after retirement, their province of residence in 1995 may not be the same as in 1992, when they earned their final pre-retirement income. In fact, relatively few

people in this study (6%) lived in a different province after their retirement. On average, their pre-retirement income was slightly higher than that of people who stayed put (\$39,800 versus \$34,800), and their income replacement ratio a little lower (52% versus 59%). As a result, their post-retirement income was about the same as that of retirees who did not change province (\$20,800, compared with \$20,500).

**Table 6
Pre-retirement income and income replacement ratio in 1995,
by presence of spouse**

	Men	Women	
		'000	
Total	113	55	26
		%	
Pre-retirement income			
Total	100	100	100
Under \$20,000 *	16	47	28
\$20,000 to \$39,999	39	40	48
\$40,000 and over	45	13	23
Average replacement ratio			
Total	57	59	65
Under \$20,000 *	96	71	83
\$20,000 to \$39,999	61	57	65
\$40,000 and over	53	53	59

Source: Longitudinal Administrative Databank, 1992 and 1995

* Includes loss.

replacement ratios (more than 100%, in some cases). Second, most retirees observed in this study are too young to qualify for Old Age Security. Once this source is added to their income, their situation can be expected to improve.

Many others are not well off, especially in the first couple of years of retirement. Those with low pre-retirement incomes may experience difficulty before they begin collecting OAS cheques. Some have replacement ratios well below the average; in fact, one-third with pre-retirement incomes under \$20,000 have replacement ratios under 50%. Such people may need to rely on savings or the support of family members in the interim. □

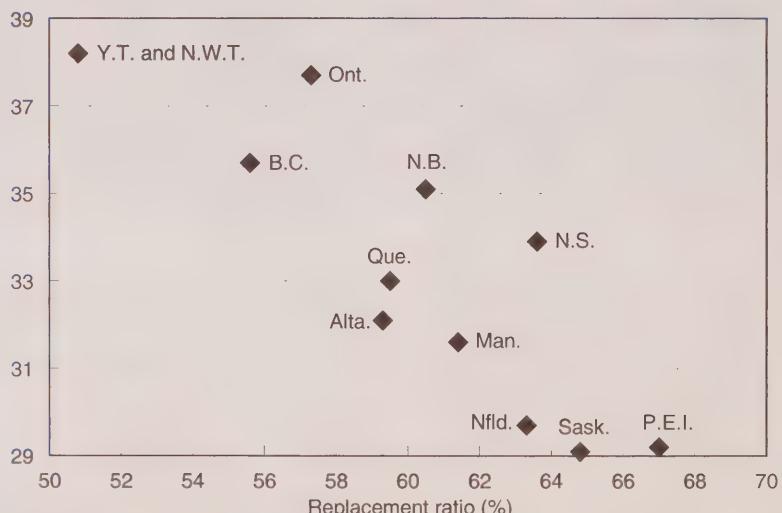
As noted earlier, retirees' income replacement ratio varied with pre-retirement income. The more income before retirement, the lower the percentage kept after. This relationship also held across provinces and territories. Average pre-retirement income was lowest in regions with the highest income replacement ratios. Average replacement ratios varied from just over 50% in the Territories and 55% in British Columbia to 65% in Saskatchewan and 67% in Prince Edward Island (Chart).

Summary

Finance Canada has proposed the 60%-to-70% range as a goal of income replacement after retirement. This study shows that, on average, retirees fall moderately short of that (58%). This finding has two mitigating factors, however. First, people with low incomes immediately prior to retirement have much higher percentage

Chart
Income replacement ratios tend to be inversely related to pre-retirement income.

Pre-retirement income (\$'000)



Source: Longitudinal Administrative Databank, 1992 and 1995

Income stream

This study uses 1992 to measure pre-retirement income. As with any year selected for study, it may or may not represent a "typical" earnings year for a "typical" retiree. For example, because of poor health or few prospects in their field, some workers may have been forced to reduce their hours or to move to a lower-paying job as they approached retirement.

Measuring post-retirement income is an even more complex problem, because people retire from age 55 (the minimum in this study) to 70 and beyond. The Canada and Quebec Pension Plans (C/QPP) do not pay benefits (except disability and survivor's) before age 60, and impose a reduction on claims made before age 65. Even full benefits vary widely, depending on the person's employment and contribution history. Maximum benefits in 1995 were about \$8,000 per year.

Old Age Security (OAS), available to most Canadians aged 65 and over regardless of employment history, provided about \$400 a month in 1995.⁶ Because some retirees in the study had not yet begun to receive C/QPP benefits and were not old enough to receive OAS, their 1995 income does not necessarily represent their expected income stream for the balance of their lives. However, in order to study persons who have retired relatively recently, the analysis must rely on information available now. Any longitudinal tracing of retirees must come later.

If a retiree is not currently receiving C/QPP and/or OAS, one possible approach would be to add the expected future amounts to their present income. Undoubtedly, this is what some retirees with low post-retirement income in this study will experience eventually. Some people, however, may "front-end load"

their income in anticipation of future public pensions; therefore, it is not known to what extent these other income sources may drop with the arrival of these pensions.

Additional information source

The Survey of Labour and Income Dynamics (SLID) has now accumulated three years of longitudinal data, and will soon be adding more. Although the sample is much smaller than the LAD file, SLID will have many advantages. In particular, it will provide a direct measure of work at the end of a person's career, which will help to address such questions as partial retirement, the precise date of retirement, and the nature and duration of work prior to retirement.

Notes

1 Although the Finance Canada definition mentions pre-retirement earnings, the focus of this study is on income from all sources before and after retirement. This is partly because of the limitations of the tax file, but also because income from all sources is a more meaningful measure. Future work would be needed to identify the type of income sources before and after retirement.

2 This study makes no attempt to describe the full economic picture of seniors (that is, their total assets, including income from other family members, mortgage-free homes and so on). Obviously, such matters as not needing to make mortgage or rent payments will affect one's approach to retirement.

3 To ensure confidentiality, names, addresses and other personal information are removed from the data, which are then combined with other observations into estimates prior to release.

4 Because of this requirement, relatively few self-employed are included in the analysis. Self-employed people appear to "wind down" their work rather than stop abruptly. A substantial proportion of older taxfilers reporting self-employment income claimed losses.

5 Income is adjusted for inflation between 1992 and 1995 (4.2%).

6 For more information on income security programs for seniors, see Statistics Canada (1996).

7 Social assistance, Unemployment Insurance and Worker's Compensation are all included in the post-retirement income measure.

8 The LAD file does not include data on the industry and occupation of the job held prior to retirement. The Survey of Labour and Income Dynamics should eventually be able to fill this gap.

9 This group comprises the never-married, widowed, divorced and separated.

10 Survivor's benefits are not easily separated from other retirement income in the tax file.

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Job stability

Andrew Heisz and Sylvain Côté

Over the last few decades, the service sector has continued to lead as a source of jobs in Canada. In fact, from 1976 to 1996, service-producing industries grew from 67% of employment to 75%, mostly in consumer services and business services (Chart A).¹

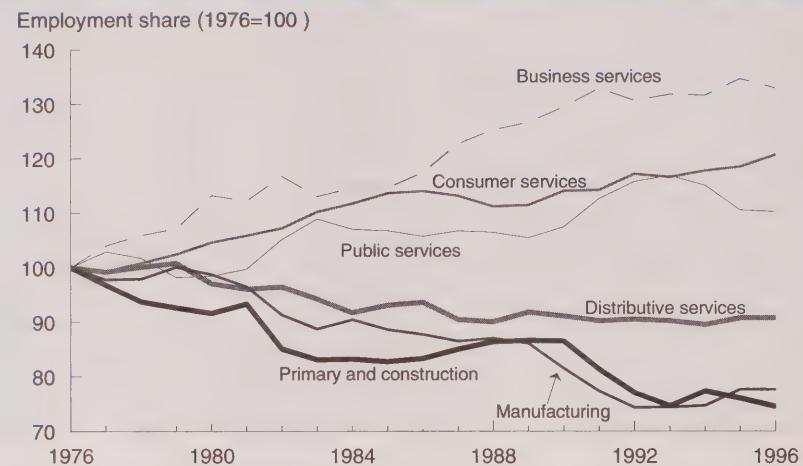
Some observers equate the service sector with less desirable, non-standard jobs (part-time, contingent, short-term, or unstable). Similarly, some believe that traditional long-term, stable employment has declined as the composition of Canadian industry has shifted further away from a manufacturing base.

Empirical work has shown, however, that rising employment in service-producing industries explains only part of the growth in non-standard jobs. According to the Economic Council of Canada (1991), non-standard employment increased throughout the 1970s and 1980s in virtually all segments of the labour market. The same study noted that changes in both goods- and service-producing industries had polarized jobs into those demanding highly skilled workers ("good jobs") and those requiring low-skilled workers ("bad jobs"). And an increased demand for workforce flexibility in all industries has been linked to the gain in temporary employment (Schellenberg and Clark, 1996).

Has overall job stability declined as the economy has shifted toward employment in the service sector? Recent research suggests otherwise: aggregate job stability was as high in

Chart A

The shift to service employment has been led by consumer and business services.



Source: Labour Force Survey

the early 1990s as in any comparable economic period during the past 20 years (Picot and Lin, 1997; Heisz, 1996a and 1996b; Green and Riddell, 1996). One recent study found that the permanent layoff rate from 1978 to 1993 was lower in services than in manufacturing (Picot and Lin, 1997).

This article uses data from the Labour Force Survey (LFS) and the Longitudinal Worker File (LWF) to answer two questions: Are jobs less stable in the service sector? Has the ongoing shift toward employment in services changed aggregate job stability in Canada? (See *Data sources and definitions*.)

Overview of job stability

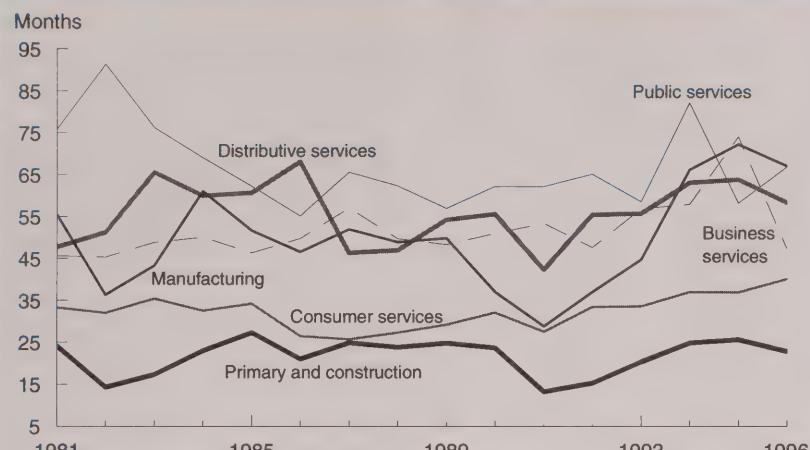
Job stability, as measured by average job duration, varies widely, and is neither uniformly higher nor lower in the service-producing industries than

in goods-producing industries. From 1981 to 1996, average job duration was highest in public services (67 months), followed by distributive services (56 months), business services (52 months), manufacturing (50 months), consumer services (32 months) and the primary and construction industries (22 months). The relatively short tenure in consumer services may have sparked the concern about job stability in the service sector (Chart B).

Job duration in goods-producing industries tends to vary more with the business cycle. For example, in manufacturing it dropped in 1990 and did not recover to pre-recession levels until 1993. In the primary and construction industries it dropped in 1991 and took two full years to recover. In contrast, job stability in each of the service-producing industries dropped only for a single year before recovering, though the year differed by

Adapted from an article in Canadian Economic Observer (*Catalogue no. 11-010-XPB*) 11, no. 5 (May 1998): 3.1-3.11. Andrew Heisz and Sylvain Côté are with the Business and Labour Market Analysis Division. They can be reached at (613) 951-3748 or heisand@statcan.ca.

Chart B
New jobs in public services have had the longest duration.



Source: Labour Force Survey

industry: 1991 for distributive services and consumer services, 1992 for business services and 1993 for public services.

For most industries, job duration during the 1993-96 recovery⁵ was higher than it had been during the recovery of 1983 to 1986: it increased 24% in manufacturing, 21% in business services, 15% in consumer services, and 6% in primary and construction. Job duration in public services and distributive services, already comparatively high, changed little.

Given the shift in employment toward consumer services, where job duration has been relatively low, a downward shift in aggregate job stability might be expected.⁶ However, this has not happened (Chart C), in part because of a recent rise in job duration in this industry. Furthermore, aggregate job stability has been enhanced by the shift in employment toward industries with high job duration, such as business services and public services, and away from primary and construction industries.

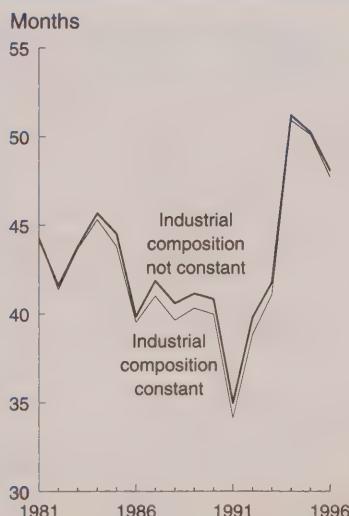
the difficulty of finding a new job when one is lost (Picot and Lin, 1997). Although job duration has risen remarkably since 1991, hiring rates have been on a steady decline since 1987 (Chart D).

The source of employment gains in the recovery period of the 1980s differs from that of the 1990s recovery. An increasing hiring rate spurred growth following the 1981-82 recession, while rising average job duration accounted for the gains following the 1990-92 recession. This suggests that the labour market is shifting from a norm of short job tenure and high turnover to one of longer job tenure and lower turnover. This is happening across all industries.

Why is job duration rising?

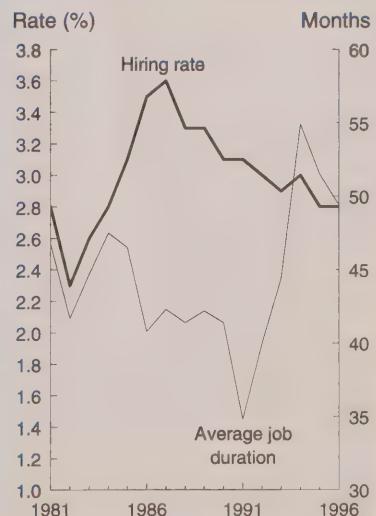
Job duration represents the balance between decisions made by the employee (whether to quit) and decisions made by the employer (whether to continue offering employment). When

Chart C
Industrial composition has little effect on job duration.



Source: Labour Force Survey

Chart D
Following the 1990-92 recession, job duration grew but the hiring rate fell.



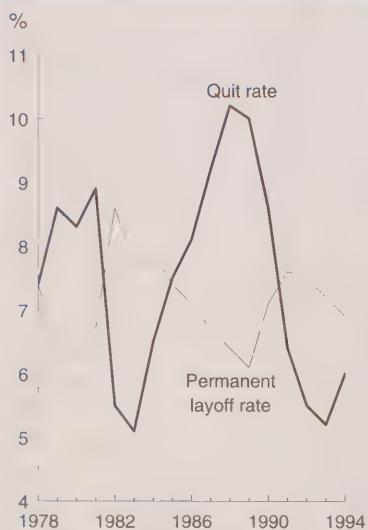
Source: Labour Force Survey

the economy is expanding, employment opportunities are plentiful and workers more prone to quit. At the same time, employers are less likely to lay off workers. Thus, an increase in job stability due to a drop in permanent layoffs tends to signal good economic times, whereas one arising from a decline in quits tends to reflect a lack of opportunity for workers.

During the period 1978 to 1994, the aggregate quit rate varied more than the permanent layoff rate. The quit rate dropped sharply in 1982 and 1983 and again from 1991 to 1993, when opportunities for workers to change jobs were scarce. It rose sharply during the economic recovery of the 1980s, when opportunities improved (Chart E).

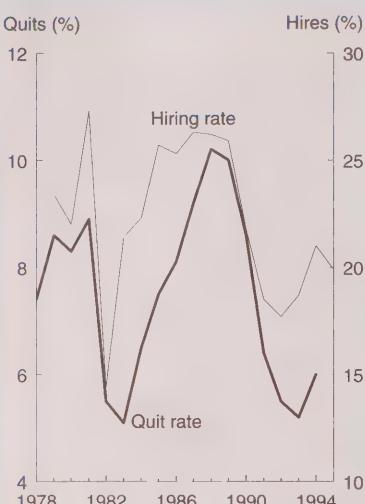
However, quit rates in 1994 (two years after the recession ended) remained at comparatively low levels. From 1983 to 1984 (the first two full years following the 1981-82 recession), the aggregate quit rate rose from

Chart E
Lower layoff and quit rates have raised job stability.



Source: Longitudinal Worker File

Chart F
Hiring and quit rates are highly correlated.



Source: Longitudinal Worker File

Permanent layoff rates were comparatively low in the more recent recovery. In 1983 and 1984, the aggregate rate stood at 7.7% and 7.9%, respectively. In contrast, in 1993 and 1994 it was 7.2% and 6.9%. So the lower rates for both permanent layoffs and quits have raised job stability.

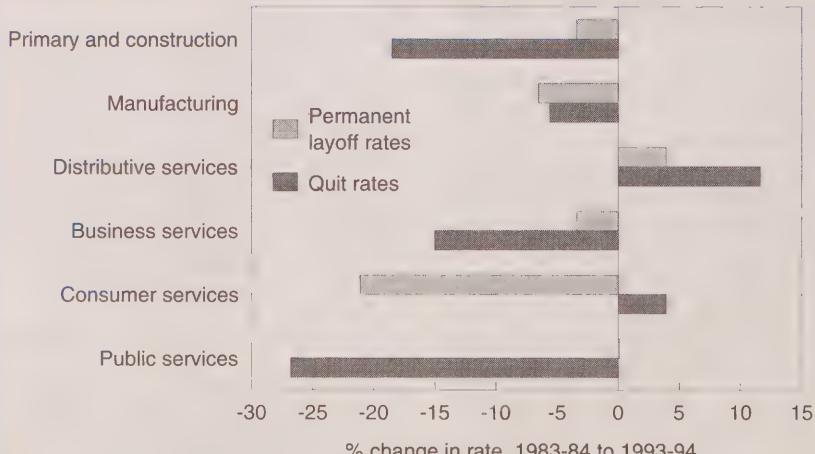
Among those industries with large increases in job stability – manufacturing, business services and consumer services – different scenarios underlie the gains. For the manufacturing industry, heightened job stability stemmed equally from drops in the rates for both permanent layoffs and quits. In business services, the increase in job stability reflected a considerable fall in the quit rate. The permanent layoff rate declined in this industry as well, but to a lesser degree. In contrast, job stability in consumer services rose because the permanent layoff rate dropped and the quit rate rose only slightly (Chart G).

5.1% to 6.5% and continued to rise each year through 1988. In contrast, from 1993 to 1994, it rose from 5.2% to 6.0%. Data for 1995 suggest that this low rate persisted.⁷

Why are quit and layoff rates so low?

Understanding the forces that influence job duration raises a further question: why are rates for quits and

Chart G
Both quit and layoff rates increased in distributive services.



Source: Labour Force Survey

Data sources and definitions

This study uses two data sources: the Labour Force Survey (LFS) for the period 1976 through 1996, and the Longitudinal Worker File (LWF), which covers 1978 through 1995. Each source offers a unique perspective on job stability.

The LFS, a monthly household survey, offers the advantages of a current time series and a wide variety of potential variables for all workers.² Its data allowed the average complete duration of a new job³ to be computed for each of the following industry groups: primary and construction, manufacturing, distributive services, business services, consumer services and public services.

The average complete duration of a new job gives the expected amount of time a worker in a new job can expect to remain with that employer.⁴ Changes in occupation or location, and periods of temporary layoff with recall were not considered interruptions in a job. If a person had worked for the same employer over different periods of time, job duration was measured starting with the most recent period of work.

The LWF offers a large longitudinal sample of workers (1.8 million); it gives the reason for job separations, but is not as current as the LFS, and excludes some

workers. The LWF is constructed from the Record of Employment (completed for each departing employee) and the T4 supplementary files. This means that only persons working in insurable employment are included. Thus, self-employed workers, workers aged 65 or over, workers earning less than the minimum weekly insurable earnings (\$113 in 1988), and workers employed less than 15 hours per week are not covered in the LWF. (Recent changes in legislation dropped the limits for employees.)

Quits can occur for job-related reasons, because workers seek more pay, greater opportunities for promotion and training, better working conditions, or other features of the job. They can also occur for personal reasons, as a result of illness, a return to school or a pregnancy. Generally, quits do not entail permanent job loss, except perhaps when firms take advantage of them to downsize or when they occur in anticipation of an eventual layoff.

Layoffs are driven by a different set of events from those associated with quits. Layoffs are often associated with **permanent job loss** as a result of a decline in business activity, firm closures, technological changes, redundancies created by mergers, cost-cutting measures

and other reasons related to the economic situation of the firm. On the other hand, layoffs may mean only **temporary job loss**, as they often do in seasonal industries, as a result of temporary declines in business activity or shortages of materials or equipment. Other firm-initiated separations include those from temporary jobs, when the layoff occurs at the end of a specified term or when a particular task is completed.

Hirings represent the other side of the turnover phenomenon. Hirings can fill either new jobs or jobs vacated or freed up by a quit or a retirement. In practice, the distinction between a new job and an existing one is difficult to make. Hirings may also fill permanent or temporary jobs, a distinction that is of special interest, as it can reveal, in connection with data on full- and part-time hiring and contracted-out activities, how firms and industries manage their labour needs. Hiring data can also present a picture of what the labour market looks like to potential job seekers. Hirings represent the job vacancies filled during the year, and thus could be used to establish a "profile" of the labour market, although this profile would not include unfilled vacancies.

permanent layoffs so low? Some possible explanations follow:

Changing demographics: The shift toward longer job duration could simply reflect changes in the demographic composition of employment. The workforce has changed over the study period: it has shifted toward older workers and highly educated workers. Older workers tend to change jobs less often, perhaps because they have already found a good match. And highly educated workers may have more stable employment because they are able to find better jobs.⁸ This being said, demographic change has occurred slowly over the past decades, whereas job stability seems to have risen soon after the 1990-92 recession.

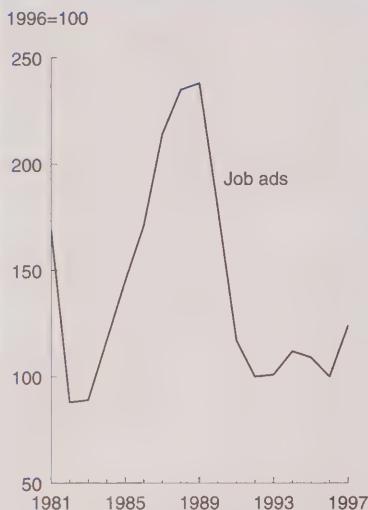
Policy changes: Changes in legislation may also have affected job duration and reduced the need for replacement hiring.⁹ Quit rates have declined sharply in the 1990s, owing in part to disincentives imposed on potential quitters (Lin, 1998). Although studies on the effect of the changes have been inconclusive (Jones, 1995), the timing of such changes corresponds to the rise in job stability.

Changing workplace environment: Changes in workplace management may have boosted job stability. For example, new management systems such as "Total Quality Management" and "lean production" – which emphasize high performance and func-

tional flexibility – place a premium on job stability, especially for certain key workers (Marsden, 1996). It is not known, however, how widely these practices have been adopted.

Slower economic growth: The 1993-96 recovery was characterized by slower growth and higher unemployment rates than those of the 1983-86 recovery. Low hiring in the 1990s, therefore, may have been motivated partly by employers' fear of not being able to respond as well as their competitors to another drop in demand. Accordingly, they may have preferred to concentrate effort on their existing workforce, which would lead to longer tenure. This approach results in stagnant labour demand, which is, in turn,

Chart H
Labour demand was weak after the 1990-92 recession.



Source: Help-wanted Index

reflected in the hiring rate. The Help-wanted Index, another indicator of hiring, shows the same pattern (Chart H).

In addition to the change in hiring, lacklustre labour demand may have led to a situation in which workers, perceiving that job opportunities were scarce, or concerned that their skills were insufficient to land a new job, may have been hesitant to leave their jobs. This in turn would raise job duration and reduce the need to hire replacements. Industries like business services and public services, which have undergone considerable restructuring in the 1990s, fit this scenario.

Although increases in job duration may be desirable for many workers, they may also point to changes in the economy that are less benign. For instance, lessening job security or tightened policy regimes may have decreased mobility in the labour market, requiring workers to remain longer in poor job matches.

Summary

Job stability varies widely between the service- and goods-producing industries and within the service sector. For example, jobs are stable in business services, distributive services and manufacturing, but much less so in consumer services and primary and construction industries. Job stability is highest in public services.

Even with the shift toward employment in industries like consumer services, aggregate job stability in Canada remains robust. Rising job stability in that industry, as well as employment gains in business services and public services, underlies this finding.

Job stability in service-producing industries tends to vary less with business cycles, and recovers more quickly from recession than that in goods-producing industries. And, contrary to popular perception, job stability in most industries is as high as or higher than it has been at any time since 1981.

This last finding forces a closer look into the factors that underlie changes in job stability; specifically, changes in permanent layoff rates and quit rates. The recent rise in job stability was caused partly by a drop in the quit rate, especially in business services and public services. But since a *rising* quit rate is characteristic of an improving economy, the recent development is not, therefore, an unqualified sign of recovery. Drops in both permanent layoff and quit rates contributed to the growth in job stability in manufacturing. And a drop in the permanent layoff rate explains the increase for consumer services. □

Notes

1 Business services comprise finance, insurance and real estate, and services to business management. Consumer services comprise retail trade; amusement and recreation services; personal services; and accommodation, food and miscellaneous services. Public services comprise education; health and social services; religious

organizations; and federal, provincial and local administration. Distributive services comprise transportation and storage, communications and other utilities, and wholesale trade. Primary and construction industries comprise agriculture; fishing and trapping; logging and forestry; mines, quarries and oil wells; and general and special trade contractors.

2 This study excluded from the LFS all self-employed workers, students and (during the summer months) returning students. The self-employed were excluded because job tenure for these workers (as defined in the LFS) is conceptually different from that for others. Students were excluded because they are not considered to be fully integrated into the labour force.

3 Job stability among new jobs "is an obvious measure of the difficulty of establishing or re-establishing a fairly long-term match between the worker and the firm, and thus is one important indicator in the debate on job security" (OECD, 1997).

4 This study calculates the statistic as outlined in Heisz (1996b), not as performed by the LFS.

5 In this study, recession periods are from the third quarter of 1981 to the end of 1982, and from the second quarter of 1990 to the third quarter of 1992.

6 The aggregate average duration was computed as follows: aggregate duration equalled the sum of industry specific duration weighted by the share of all hires accounted for by that industry. Industry shares held constant at their 1981 levels generated an aggregate duration statistic that was free of changes due to shifts in industrial composition. If this statistic was higher than the actual aggregate duration, then it could be assumed that the compositional shift among industries was placing downward pressure on job stability.

7 Because many new hires are intended to replace workers who quit, the hiring rate tends to be highly correlated with the quit rate (Chart F). Both the quit rate and the hiring rate rose between 1993 and 1994. However, the hiring rate dropped in 1995, suggesting that the quit rate also remained low that year.

8 Additional analysis has shown that if age, firm size and province are held constant, the probability of permanently separating from a job declined from 10% to 5% between the 1983-86 period and 1993. This suggests that at least some of the observed change was caused by the changing demographic composition of the workforce.

9 Among recent changes to the Employment Insurance (EI) system affecting quitters, the penalty period increased from 1 to 6 weeks, to 7 to 12 weeks, and the benefit rate dropped to 50% in 1990. Since 1993, quitters without a "justifiable reason" (for example, persons fired for misconduct or those who refused to accept other employment) have been ineligible for EI benefits.

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The rise of unionization among women

Ernest B. Akyeampong

Over the past three decades unionization among female workers has risen considerably. In line with their growing presence in the workforce, an increasing number of women have become union members: from 320,000 in 1966 to 1.6 million in 1992, a five-fold increase. Over the same period, the proportion of female employees belonging to a union, that is, their union membership rate or density, almost doubled from 16% to 30%. Since 1992, both their union membership and density appear to have changed little.

In contrast, union membership among men rose slowly – from 1.6 million in 1966 to 2.3 million in 1989 – then decreased to 2.2 million in 1992. Union density declined over the period, from 38% to 36%, and appears to have eroded slightly since then.

As a result of these movements, the presence of women in unions rose from just 17% in 1966 to 42% in 1992, with little subsequent change.

Why has unionization risen among female workers? Where has growth been fastest? What accounts for the stability in recent years? And which characteristics are associated with current membership levels and density (see *Data sources*)? The first three questions are addressed in this study. Answers to the last question are provided in the accompanying union statistics (Appendix).

Contributing factors

The rise of unionization among female workers is the result of many, often interacting, factors, the most important of which has been the increasing presence of women in the heavily

Data sources

Most of the data in this study are provided under the *Corporations and Labour Unions Returns Act* (CALURA). For about three decades CALURA was the only continuous source of union membership data by sex, industry and province.

The Act requires each national and international union with 100 or more members resident in Canada to submit annual financial and membership information to the government. Statistics Canada is charged with administering the Act. Since the reference period for the CALURA count is December 31, this study calculates estimates of union density with December Labour Force Survey (LFS) numbers for paid workers (employees).

(The latest published CALURA data relate to 1992; work is under way to compile and publish the 1993, 1994 and 1995 data shortly.)

In January 1997, the redesigned LFS began to collect and publish estimates of union membership and coverage, that is, both union members and persons who are not members but whose terms of employment are covered by collective agreements. A comparison of the CALURA data and those from the LFS and other household-based surveys is under way. This study is not yet complete, but initial results suggest that overall density ratios and trends from the various sources are similar (Galarneau, 1996).

Care should be exercised, however, when comparing LFS and CALURA data. Slightly different results emerge for a number of reasons, some of which are listed below:

- For CALURA, the reference period is December 31 of each year, whereas for the LFS it is usually the week that includes the 15th of the month. This difference is probably of little consequence.
- CALURA is an enumeration of unions with 100 or more members; the LFS is based on a sample of households and imposes no restrictions on union size.
- Multiple jobholders who belong to different unions in each job can be counted twice in CALURA, but only once in the LFS.

The first two questions raised in this article can be addressed by CALURA. Indications from many sources, including preliminary post-1992 CALURA data, suggest 1992 as the most likely peak for both female union membership and density. Explanations for their stability in recent years are inferred mainly from post-1992 Labour Force Survey (LFS) and other data. Recent union statistics are taken from the redesigned LFS database (see Appendix).

This article updates one originally released on the eve of Labour Day, 1998.

unionized public sector, which had been growing until recently. Other factors include

- a 1981 amendment to reporting rules under CALURA that affected primarily workers in the public sector;
- the increasing movement of women into other "non-traditional," male-dominated and often heavily unionized industries or occupations;
- rising unionization among part-time workers; and
- the expansion of union activity into traditionally female-dominated, non- or less-unionized workplaces, especially in service industries.

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While some interactions have been noted, data limitations (such as the lack of consistent detailed industry data throughout the period and a change in reporting arrangement) have precluded the use of a multivariate or a shift-share analysis to isolate the influence of each factor on overall growth in female union membership and density. Data limitations have also constrained the analysis mostly to the post-1976 period.

Women's presence in the public sector has grown

Labour market analysts often point to the public sector when explaining the difference between Canadian and American trends in union density in the last two decades.¹ In the United States, overall density declined sharply from 20% in 1983 to 14% in 1997, while in Canada it stabilized around 31% to 33% over the same period. Had it not been for employment growth (at least until the last several years) in this heavily unionized sector, both union membership and density in Canada would have fallen. For example, in 1997 union density in the U.S. public sector stood at 37.2%, about half the comparable rate in Canada (73.0%). Had the Canadian rate matched the American, Canada's overall union density in 1997 would have been 24.5% instead of 30.9%.² Among female employees, the public sector played more than a stabilizing role in union membership and density: it was the main catalyst for growth, at least until the beginning of the 1990s.

Because CALURA does not distinguish between public and private sector employees or union members, data from the LFS better illustrate the effect of the public sector on women's union membership and density.³ Information from the LFS suggests that five major industries (government services; transportation and storage; communication and other utilities; education; and health and social services) account for almost all

female public sector employees (over 95% in 1976 and 1992) and a good proportion of female employees overall (about 40% in 1976 and 42% in 1992).⁴ In 1989, women's union density in these five industries combined was 56%, compared with only 11% for all other industries.

Over the period 1976 to 1992, employment increased by 294,000 in the public sector. Women gained 370,000 jobs; men lost 76,000. Even if women's density in this sector had remained unchanged, the increase in the number of female employees would have caused union membership to rise. But other factors appear to have influenced public sector density as well. Between 1989 and 1992, women's union density in each of these five industries rose, implying that many more women were occupying unionized positions in the public sector.

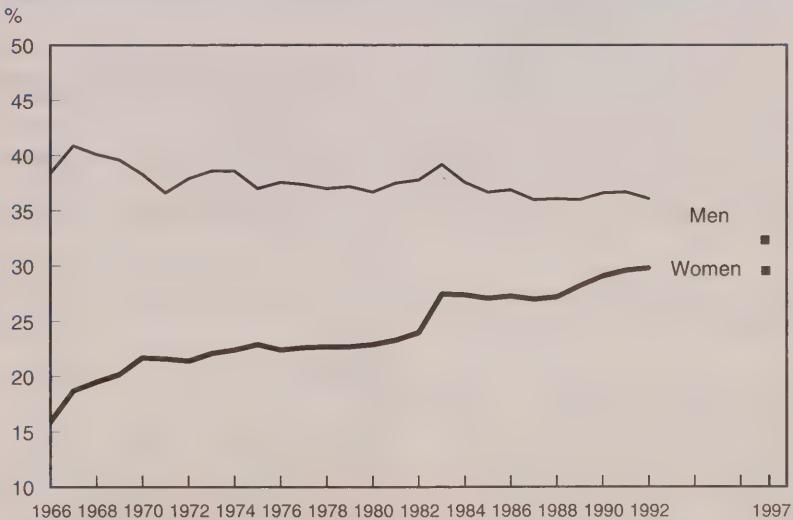
Because public sector industries accounted for such a large proportion of female unionized workers (the aforementioned five industries made

up 78% in 1989), growing unionization in that sector also meant a rise in all-industry women's union membership and density over the 1976-92 period.

Amendment changed reported figures

The 1983 implementation of an amendment to the *Corporations and Labour Unions Returns Act* resulted in an upward shift in reported union membership and density. This amendment required some professional associations such as teachers federations and nurses organizations (most of which are in the public sector) to begin filing membership and financial reports under the Act (further boosting overall union growth). The resulting increases in union membership and density were somewhat larger for women because of their predominance in these federations and organizations. Their reported union membership grew by 169,000 in 1983, and their union density increased from 24.6% under the old reporting system to 27.5% (Chart).

Chart
Reported union density has risen among women.



Sources: CALURA (1966 to 1992) and Labour Force Survey (1997)

Women have shifted into male-dominated industries

The steady movement of women into "non-traditional," male-dominated and often heavily unionized industries and occupations has contributed to the increases in women's union membership and density noted earlier. Events in the construction industry are a case in point.⁵ (Because CALURA does not collect occupational data, this analysis is restricted to industry shifts.)

The construction industry has persistently posted a higher-than-average concentration of men, as well as higher-than-average union density. In 1976, for example, about 92% of employees in this industry were men, compared with 61% in all industries; similarly, union density in construction was 58%, compared with an all-industry density of 32%. Over the years, however, the number of women in this industry has increased while that of men has fluctuated. The number of women almost doubled between 1976 and 1992, from 36,000 to 68,000, and their employee share more than doubled, from 7.6% to 15.4%. More importantly, women's union density in the industry tripled (from 4% to 12%), implying that in 1992 many more female employees occupied unionized positions: indeed, about one in 8 did, compared with less than one in 30 in 1976. The opposite occurred in other male-dominated industries such as manufacturing (in which women's employment and union density both declined), though not enough to curb women's overall union density.

More unionized part-time workers

A small proportion of the growth in women's union membership over the years can be traced to gains made among part-time workers. Some of these gains may be the result of efforts by previously non-unionized workers to have working conditions improved. Others are the result of

unionists' attempts to discourage certain hiring practices; in particular, a perceived preference for non-unionized, less costly part-time labour.

Because CALURA makes no distinction between full- and part-time unionized workers, this study uses data from household-based sources, specifically the Labour Market Activity Survey (an LFS supplement) and the redesigned LFS. According to these sources, union membership and density increased among part-time employees aged 16 to 69 between 1987 and 1997: membership rose from 418,000 to 462,000 while density increased from 20.0% to 21.8%. Furthermore, all of the growth occurred among female part-time employees. Union density among women rose from 21.7% to 23.9%.

Expansion into non-unionized workplaces

Of the factors contributing to the rise of unionization among women, the most difficult to verify are inroads made into certain areas of the economy, in particular, the service industries.⁶ Such workplaces tend to employ disproportionately large shares of young people and women. Typical are retail outlets, banks, and accommodation, food and beverage establishments.

Effective organization of these workers is often hampered, financially and logically, by their relatively small and geographically scattered workplaces. High worker turnover in many cases also makes organizing difficult.

Data from CALURA, albeit highly aggregated, suggest that women's union activity may be growing slowly in some of these workplaces. For example, in retail trade and in finance, insurance and real estate (both characterized by a large female presence), union membership and density rose between 1976 and 1989 (Table 1). Furthermore, despite the effects of the 1990-92 recession on employment, density remained unaffected in trade, and actually rose in finance, insurance and real estate. In accommodation, food and beverage services (characterized by high youth employment), some marginal increases occurred between 1989 and 1992.

Growth uneven

Because the level of industry detail under CALURA changed during the period under study, it is not possible to determine precisely where growth was fastest. But for the 1989-to-1992 period, during which data for most major industries are known, growth in women's union membership and

Table 1
Women's union membership and density in selected service industries

	Membership			Density		
	1976	1989	1992	1976	1989	1992
'000						%
Retail trade	43	87	81	8.0	11.0	11.0
Finance, insurance and real estate	8	15	19	2.5	3.3	4.2
Accommodation, food and beverage services	..	31	32	..	7.2	7.5

Source: CALURA

density occurred everywhere except in manufacturing, where it fell. The fastest growth occurred in education; health and social services; and government services.

Among the provinces, increases in women's union membership and density were universal between 1976 and 1992 (Table 2). Membership actually tripled in Newfoundland and more than doubled in all other provinces except Manitoba and Quebec. In 1976, these two latter provinces together with British Columbia already had densities exceeding the national average. Indeed, Quebec boasted the highest provincial density (30%).

Table 2
Women's union membership and density by province

	Membership		Density	
	1976	1992	1976	1992
	'000		%	
Canada	749	1,583	23	30
Nfld.	10	31	21	41
P.E.I.	3	7	23	33
N.S.	16	41	16	27
N.B.	14	34	20	28
Que.	251	444	30	36
Ont.	241	545	18	26
Man.	36	70	24	35
Sask.	23	56	21	32
Alta.	55	136	19	27
B.C.	101	219	28	35

Source: CALURA

By 1992, Newfoundland, Prince Edward Island, Quebec, Manitoba, Saskatchewan and British Columbia all recorded above average densities for women. Newfoundland recorded the highest rate (41%).

Figures stabilize in the 1990s

Unpublished, preliminary CALURA data point to a stabilization in both women's union membership (at around 1.6 million) and density (at

around 30%) from 1992 to 1995. Data from the redesigned LFS also suggest that these levels held in 1997, as they have so far in 1998. What accounts for this stability? Two trends appear to be at work here. Declines in public sector employment in recent years may have resulted in reduced membership. On the other hand, increased activity in formerly non- or less-organized workplaces or work groups, such as part-timers, and the increasing movement of women into some heavily unionized areas, may have produced offsetting increases.

Summary

Except for the last several years, women's union membership and density have witnessed steady growth over three decades. This contrasts sharply with the experiences among men, whose membership and density have trended down over the past decade. As a result of these movements, almost one in two union members today is a woman, compared with about one in six three decades ago. This growth has been widespread. All provinces have experienced it, as have all major industries except manufacturing.

The rise in union activity among women prior to the 1990s can be traced to several factors, most notably, their growing presence in the heavily unionized public sector.

Since the beginning of this decade, women's union membership and density have remained fairly steady, with declines in the public sector being offset by increases elsewhere. □

Notes

1 Since the mid-1960s, many workers in Canada's public sector have been allowed to unionize.

2 Union density in the private non-agricultural sector in the United States (9.8% in 1997) was also considerably lower than the corresponding figure for Canada (21.9% in 1997).

3 Until 1989, the industry information provided by CALURA was not detailed enough to provide meaningful estimates of the public/private split of total union membership. For example, while CALURA has regularly released union membership data on government services; transportation and storage; and communication and other utilities (largely public sector and heavily unionized), it treated education, and health and social services (both largely public industries) as one industry until 1989, when it began to show them separately.

4 The LFS identifies each employer as public or private, based on "ownership." Thus, public sector employees are those who work for a local, provincial or federal government service or agency, a crown corporation, or a publicly owned establishment such as a school or hospital. All other employees are identified as private. Union membership or coverage is determined according to respondents' answers to the following questions:

IS ... A UNION MEMBER AT (name of main job)? If no,

IS ... COVERED BY A UNION CONTRACT OR COLLECTIVE AGREEMENT?

5 Data limitations prevent a study of overall effects of these movements.

6 For an account of the successes and failures in unionizing workers at many of these workplaces see Thompson (1998).

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Appendix

Selected union statistics

Table 1-A Union membership and coverage of employees (both sexes)

- During the first nine months of 1998, approximately 3.6 million (30.5%) paid workers (employees) belonged to a union. An additional 295,000 (2.5%) employees were covered by a collective agreement, thus enjoying union-negotiated benefits even though they were not union members.
- Men's unionization rate slightly exceeded women's (31.4% versus 29.5%).
- Employees in the public sector, that is, those working for government, crown corporations, or government-owned schools or hospitals, were more than three times as likely as their private sector counterparts to belong to a union (72.0% versus 21.6%).
- Almost one in three full-time employees belonged to a union, compared with about one in five part-time workers. Also, almost one in three employees in a permanent position was a union member, compared with roughly one in four in a non-permanent job.
- High union rates were found among employees aged 45 to 54 (43.0%), as well as those with university degrees (35.2%), workers in Newfoundland (38.5%), those in government services (65.0%) and utilities (63.9%), and workers in professional positions (48.4%).

Table 1-B Union membership and coverage of men

- During the first nine months of 1998 high union rates were recorded among men with less than Grade 9 education (36.2%), mirroring the high union rates in blue-collar occupations such as construction (44.3%); processing, machining and fabricating; transport equipment operating; and material handling and other crafts (about 40%).
- The union rate among male part-time employees (15.9%) was only half that observed among their full-time counterparts (33.1%).

Table 1-C Union membership and coverage of women

- Women's highest unionization rate during the first nine months of 1998 was recorded among university graduates, a reflection of the high union profile in certain white-collar professional positions (for

example, teaching, and health and social service occupations). In both managerial and professional occupations, women's rates exceeded men's.

- The unionization rate among female part-time workers (24.1%) was considerably higher than that of their male counterparts (15.9%). The high incidence of job sharing among professionals in this group contributed to the rate.
- Women in blue-collar jobs were considerably less likely than men in similar positions to belong to a union (27.5% versus 38.7%, respectively). The reverse was true for persons in non-permanent jobs (23.9% versus 20.3%).

Table 2 Average earnings and average usual hours, main job

Though not all of the differences can be attributed to union status, LFS data for the first nine months of 1998 show the following:

- Average hourly earnings of unionized workers were higher than those of non-union members. This held true whether they worked full time (\$19.01 versus \$15.50) or part time (\$16.71 versus \$9.76).
- Unionized part-time employees not only worked more hours each week than non-unionized part-timers, they also earned almost twice as much (noted above). As a result, their average weekly earnings were double those of the latter (\$331.74 versus \$164.90).
- On average, full-time unionized women earned 90% of their male counterparts' hourly wages. In contrast, unionized women who worked part time earned 8% more than men.

Table 3 Major wage settlements and inflation rates

- During the first seven months of 1998, wage gains amounted to 1.5%, with inflation running around 1.0%. This suggests a possible shift away from the prolonged period during which gains in major wage settlements generally lagged inflation.
- As well, the gap between the public and private sectors has narrowed over the past year or so. For example, during the first seven months of 1998, gains in the public sector averaged 1.5%, almost identical to the private sector's 1.6%.

Table 4 Strikes and lockouts, workers involved and person-days and working time lost

- Annual statistics on strikes, lockouts and person-days lost are affected by several factors, including the nature of collective bargaining timetables, the size of the unions involved, and the state of the economy. Collective bargaining timetables and the size of the unions involved determine the potential for industrial disputes at a point in time, as well as the number of person-days lost in the event of a strike. The state of the economy influences the likelihood of an industrial dispute, given that one is technically possible.
- As measured by person-days not worked, 1996 and 1997 witnessed some resurgence of labour unrest. Even for these years, though, despite a larger workforce, the number of strikes and lockouts (279 in 1997) and the resulting person-days lost (3.6 million) were roughly one-third the levels of 1980.
- Data for the first half of 1998 show 171 strikes and lockouts involving 84,000 workers, with an estimated 890,000 person-days lost or 0.06% of working time.

Data sources

Information on union membership, density and coverage by various sociodemographic characteristics, including earnings, are from the redesigned Labour Force Survey (LFS), which came into effect January 1997. Further details on LFS-based union statistics can be obtained from Marc Lévesque, Household Surveys Division, Statistics Canada at (613) 951-2793.

Data on strikes, lockouts and workdays lost, and those on major wage settlements were supplied by Human Resources Development Canada. Further information on these statistics may be obtained from Céline Laporte, Workplace Information Directorate, HRDC at (819) 953-8251 or 1 800 567-6866.

Table 1-A
Union membership and coverage of employees by selected characteristics, 1998*

	Total employed	Union member		Union coverage **		Not a union member ***
		Total	Density	Total	Density	
		'000	%	'000	%	
Both sexes	11,770	3,590	30.5	3,885	33.0	7,886
Sector †						
Public	2,078	1,496	72.0	1,577	75.9	500
Private	9,693	2,093	21.6	2,307	23.8	7,385
Sex						
Men	6,164	1,938	31.4	2,110	34.2	4,053
Women	5,607	1,651	29.5	1,775	31.7	3,832
Age						
15 to 24	1,951	215	11.0	253	13.0	1,698
25 to 54	8,899	3,042	34.2	3,279	36.8	5,620
25 to 44	6,499	2,010	30.9	2,182	33.6	4,317
45 to 54	2,401	1,032	43.0	1,097	45.7	1,303
55 and over	920	332	36.1	353	38.3	568
Education						
Less than Grade 9	450	142	31.7	151	33.7	298
Some high school	1,581	400	25.3	428	27.1	1,153
High school graduation	2,436	669	27.5	718	29.5	1,718
Some postsecondary	1,167	268	23.0	292	25.0	875
Postsecondary certificate or diploma	3,959	1,345	34.0	1,456	36.8	2,503
University degree	2,177	766	35.2	839	38.6	1,338
Province						
Newfoundland	163	63	38.5	65	40.1	98
Prince Edward Island	49	13	27.1	14	29.1	35
Nova Scotia	342	98	28.8	105	30.6	237
New Brunswick	274	75	27.4	80	29.2	194
Quebec	2,788	989	35.5	1,113	39.9	1,675
Ontario	4,687	1,303	27.8	1,377	29.4	3,309
Manitoba	451	155	34.3	164	36.3	287
Saskatchewan	352	118	33.7	128	36.3	224
Alberta	1,204	266	22.1	306	25.4	898
British Columbia	1,462	508	34.8	533	36.5	929
Work status						
Full-time	9,696	3,138	32.4	3,398	35.0	6,298
Part-time	2,075	452	21.8	487	23.5	1,587
Industry						
Goods-producing	3,130	957	30.6	1,037	33.1	2,093
Agriculture	141	4	2.8	5	3.8	136
Other primary	236	60	25.5	66	27.9	170
Manufacturing	2,144	679	31.7	737	34.4	1,406
Construction	473	127	26.9	135	28.6	338
Utilities ‡‡	136	87	63.9	93	68.8	42
Service-producing	8,640	2,632	30.5	2,848	33.0	5,793
Transportation, storage and communication	798	362	45.4	382	47.8	416
Trade	1,977	225	11.4	261	13.2	1,717
Finance, insurance and real estate	666	55	8.3	70	10.5	596
Community, business and personal services †††	4,391	1,465	33.4	1,565	35.7	2,825
Government services	808	526	65.0	570	70.5	238

Table 1-A

Union membership and coverage of employees by selected characteristics, 1998 * (concluded)

	Total employed	Union member		Union coverage **		Not a union member ***
		Total	Density	Total	Density	
	'000	'000	%	'000	%	'000
Both sexes	11,770	3,590	30.5	3,885	33.0	7,886
Occupation						
White-collar	8,523	2,394	28.1	2,606	30.6	5,917
Managerial and administrative	1,745	262	15.0	313	17.9	1,432
Professional	2,340	1,133	48.4	1,205	51.5	1,136
Clerical	1,878	533	28.4	575	30.6	1,303
Sales	1,010	79	7.8	94	9.3	916
Service	1,550	387	25.0	420	27.1	1,130
Blue-collar	3,247	1,196	36.8	1,279	39.4	1,969
Primary	262	40	15.2	44	16.9	217
Processing, machining and fabricating	1,635	622	38.1	668	40.8	968
Construction	475	209	43.9	219	46.0	257
Transport equipment operating	420	160	38.1	171	40.6	249
Material handling and other crafts	455	165	36.2	177	38.9	278
Workplace size						
Under 20 employees	4,086	493	12.1	561	13.7	3,525
20 to 99 employees	3,768	1,154	30.6	1,252	33.2	2,516
100 to 500 employees	2,453	1,105	45.1	1,183	48.3	1,269
Over 500 employees	1,463	838	57.3	888	60.7	575
Job tenure						
1 to 12 months	2,842	373	13.1	439	15.5	2,403
Over 1 year to 5 years	3,446	695	20.2	777	22.5	2,669
Over 5 years to 9 years	1,727	589	34.1	627	36.3	1,100
Over 9 years to 14 years	1,463	637	43.6	672	45.9	791
Over 14 years	2,292	1,295	56.5	1,369	59.7	923
Job status						
Permanent	10,363	3,279	31.6	3,535	34.1	6,828
Non-permanent	1,408	311	22.1	350	24.8	1,058

Source: Labour Force Survey

* Average for the January-to-September 1998 period.

** Includes both union members and persons who are not union members, but who are covered by collective agreements (for example, some religious group members).

*** Includes workers who are neither union members nor covered by collective agreements.

† Public sector employees are those working for government departments or agencies, crown corporations or publicly owned schools, hospitals or other institutions. Private sector employees are all other wage and salary earners.

†† Includes electric power systems, water systems, gas distribution systems and waste disposal systems.

††† Includes business services; education; health and social services; accommodation, food and beverage services; amusement and recreation services; personal and household services; membership organizations; and other services.

Table 1-B
Union membership and coverage of men by selected characteristics, 1998 *

	Total employed	Union member		Union coverage **		Not a union member ***
		Total	Density	Total	Density	
	'000	'000	%	'000	%	'000
Men	6,164	1,938	31.4	2,110	34.2	4,053
Sector †						
Public	971	692	71.2	735	75.7	236
Private	5,193	1,247	24.0	1,375	26.5	3,818
Age						
15 to 24	1,009	119	11.8	142	14.1	867
25 to 54	4,624	1,619	35.0	1,754	37.9	2,870
25 to 44	3,392	1,063	31.3	1,159	34.2	2,233
45 to 54	1,231	556	45.2	595	48.3	637
55 and over	531	200	37.8	214	40.3	317
Education						
Less than Grade 9	278	101	36.2	107	38.4	172
Some high school	915	264	28.8	283	30.9	632
High school graduation	1,242	390	31.4	419	33.8	823
Some postsecondary	581	153	26.4	166	28.6	415
Postsecondary certificate or diploma	2,010	702	34.9	764	38.0	1,246
University degree	1,137	328	28.8	371	32.6	766
Province						
Newfoundland	84	34	40.4	36	42.3	49
Prince Edward Island	24	6	23.5	6	25.5	18
Nova Scotia	177	54	30.3	57	32.2	120
New Brunswick	143	39	27.4	42	29.3	101
Quebec	1,486	549	37.0	624	42.0	862
Ontario	2,453	735	30.0	777	31.7	1,676
Manitoba	235	79	33.6	84	35.8	150
Saskatchewan	179	55	30.8	61	33.8	118
Alberta	635	129	20.3	151	23.8	483
British Columbia	749	259	34.6	273	36.5	475
Work status						
Full-time	5,567	1,843	33.1	2,005	36.0	3,562
Part-time	597	95	15.9	106	17.7	491
Industry						
Goods-producing	2,339	807	34.5	867	37.1	1,472
Agriculture	84	2	2.6	3	3.7	81
Other primary	199	57	28.7	62	31.3	137
Manufacturing	1,534	550	35.8	592	38.6	943
Construction	414	126	30.6	134	32.4	280
Utilities ‡‡	107	72	66.8	76	71.1	31
Service-producing	3,825	1,131	29.6	1,243	32.5	2,582
Transportation, storage and communication	547	253	46.2	267	48.8	280
Trade	1,051	131	12.4	154	14.7	897
Finance, insurance and real estate	232	17	7.2	21	9.2	211
Community, business and personal services †††	1,552	442	28.5	485	31.3	1,067
Government services	443	289	65.2	316	71.3	127

Table 1-B
Union membership and coverage of men by selected characteristics, 1998* (concluded)

	Total employed	Union member		Union coverage **		Not a union member ***
		Total '000	Density %	Total '000	Density %	
Men	6,164	1,938	31.4	2,110	34.2	4,053
Occupation						
White-collar	3,454	890	25.8	993	28.8	2,461
Managerial and administrative	897	129	14.3	157	17.5	740
Professional	965	357	37.0	392	40.7	573
Clerical	394	138	35.1	147	37.4	247
Sales	494	44	9.0	53	10.7	441
Service	703	222	31.5	243	34.6	460
Blue-collar	2,710	1,048	38.7	1,117	41.2	1,593
Primary	211	36	17.2	40	19.2	170
Processing, machining and fabricating	1,306	521	39.9	556	42.6	749
Construction	462	204	44.3	214	46.3	248
Transport equipment operating	380	147	38.7	156	41.0	224
Material handling and other crafts	351	139	39.7	150	42.8	201
Workplace size						
Under 20 employees	1,975	269	13.6	306	15.5	1,669
20 to 99 employees	2,014	585	29.0	642	31.9	1,372
100 to 500 employees	1,364	623	45.7	671	49.2	693
Over 500 employees	810	462	57.0	491	60.6	319
Job tenure						
1 to 12 months	1,482	206	13.9	245	16.5	1,237
Over 1 year to 5 years	1,790	369	20.6	418	23.4	1,372
Over 5 years to 9 years	833	277	33.2	298	35.7	535
Over 9 years to 14 years	712	313	43.9	331	46.5	381
Over 14 years	1,346	773	57.4	818	60.8	528
Job status						
Permanent	5,469	1,797	32.9	1,949	35.6	3,519
Non-permanent	695	141	20.3	161	23.1	534

Source: Labour Force Survey

* Average for the January-to-September 1998 period.

** Includes both union members and persons who are not union members, but who are covered by collective agreements (for example, some religious group members).

*** Includes workers who are neither union members nor covered by collective agreements.

† Public sector employees are those working for government departments or agencies, crown corporations or publicly owned schools, hospitals or other institutions. Private sector employees are all other wage and salary earners.

†† Includes electric power systems, water systems, gas distribution systems and waste disposal systems.

††† Includes business services; education; health and social services; accommodation, food and beverage services; amusement and recreation services; personal and household services; membership organizations; and other services.

Table 1-C
Union membership and coverage of women by selected characteristics, 1998*

	Total employed	Union member		Union coverage **		Not a union member ***
		Total	Density	Total	Density	
	'000	'000	%	'000	%	'000
Women	5,607	1,651	29.5	1,775	31.7	3,832
Sector†						
Public	1,107	804	72.7	842	76.1	265
Private	4,500	847	18.8	933	20.7	3,567
Age						
15 to 24	942	97	10.2	111	11.8	831
25 to 54	4,276	1,423	33.3	1,525	35.7	2,751
25 to 44	3,106	947	30.5	1,022	32.9	2,084
45 to 54	1,169	476	40.7	503	43.0	667
55 and over	389	132	33.9	139	35.6	251
Education						
Less than Grade 9	171	42	24.3	45	26.0	127
Some high school	666	136	20.4	145	21.8	521
High school graduation	1,194	279	23.3	299	25.0	895
Some postsecondary	586	115	19.6	126	21.5	460
Postsecondary certificate or diploma	1,949	642	33.0	692	35.5	1,257
University degree	1,041	438	42.1	468	45.0	572
Province						
Newfoundland	79	29	36.6	30	37.7	49
Prince Edward Island	25	8	30.4	8	32.4	17
Nova Scotia	164	45	27.2	47	28.8	117
New Brunswick	132	36	27.4	38	29.0	94
Quebec	1,302	440	33.8	489	37.6	813
Ontario	2,234	569	25.5	601	26.9	1,633
Manitoba	216	76	35.1	80	36.8	136
Saskatchewan	173	63	36.6	67	38.9	105
Alberta	569	137	24.1	155	27.2	414
British Columbia	713	249	35.0	260	36.4	453
Work status						
Full-time	4,129	1,295	31.4	1,393	33.7	2,736
Part-time	1,478	357	24.1	381	25.8	1,096
Industry						
Goods-producing	792	150	19.0	170	21.5	621
Agriculture	57	2	3.2	2	4.0	55
Other primary	37	3	8.2	3	9.5	33
Manufacturing	609	129	21.2	146	23.9	464
Construction	60	...	...	2	2.6	58
Utilities ††	29	15	53.4	17	60.3	11
Service-producing	4,815	1,501	31.2	1,604	33.3	3,211
Transportation, storage and communication	251	110	43.7	115	45.8	136
Trade	927	94	10.1	107	11.5	820
Finance, insurance and real estate	433	38	8.9	49	11.2	385
Community, business and personal services †††	2,839	1,022	36.0	1,080	38.1	1,759
Government services	365	237	64.8	254	69.6	111

Table 1-C

Union membership and coverage of women by selected characteristics, 1998* (concluded)

	Total employed	Union member		Union coverage **		Not a union member ***
		Total '000	Density %	Total '000	Density %	
Women	5,607	1,651	29.5	1,775	31.7	3,832
Occupation						
White-collar	5,069	1,503	29.7	1,613	31.8	3,456
Managerial and administrative	848	133	15.7	156	18.4	692
Professional	1,375	776	56.4	812	59.1	563
Clerical	1,484	395	26.6	428	28.8	1,057
Sales	516	35	6.7	41	8.0	475
Service	846	165	19.6	177	20.9	670
Blue-collar	538	148	27.5	161	30.0	376
Primary	51	3	6.8	4	7.7	47
Processing, machining and fabricating	330	102	30.9	111	33.8	219
Construction	13	4	31.8	5	36.1	9
Transport equipment operating	40	13	33.0	15	36.9	25
Material handling and other crafts	104	25	24.3	27	25.8	77
Workplace size						
Under 20 employees	2,111	224	10.6	255	12.1	1,856
20 to 99 employees	1,754	569	32.4	610	34.8	1,144
100 to 500 employees	1,088	482	44.3	512	47.1	576
Over 500 employees	653	376	57.6	397	60.8	256
Job tenure						
1 to 12 months	1,360	166	12.2	194	14.3	1,166
Over 1 year to 5 years	1,656	326	19.7	359	21.7	1,297
Over 5 years to 9 years	895	312	34.9	330	36.9	565
Over 9 years to 14 years	751	325	43.2	341	45.4	410
Over 14 years	946	522	55.2	551	58.3	395
Job status						
Permanent	4,894	1,481	30.3	1,586	32.4	3,308
Non-permanent	713	170	23.9	189	26.5	524

Source: Labour Force Survey

* Average for the January-to-September 1998 period.

** Includes both union members and persons who are not union members, but who are covered by collective agreements (for example, some religious group members).

*** Includes workers who are neither union members nor covered by collective agreements.

† Public sector employees are those working for government departments or agencies, crown corporations or publicly owned schools, hospitals or other institutions. Private sector employees are all other wage and salary earners.

†† Includes electric power systems, water systems, gas distribution systems and waste disposal systems.

††† Includes business services; education; health and social services; accommodation, food and beverage services; amusement and recreation services; personal and household services; membership organizations; and other services.

Table 2
**Average earnings and average usual hours, main job, by employees' union status and work status,
1998***

	Total employed	Union member	Union coverage **	Not a union member ***
Both sexes				
Average hourly earnings (\$)				
All employees	15.76	18.72	18.63	14.35
Full-time employees	16.71	19.01	18.94	15.50
Part-time employees	11.33	16.71	16.45	9.76
Average weekly earnings (\$)				
All employees	582.13	685.32	683.60	532.15
Full-time employees	663.36	736.23	735.02	624.71
Part-time employees	202.48	331.74	324.95	164.90
Average usual weekly hours, main job				
All employees	35.8	36.4	36.4	35.5
Full-time employees	39.8	38.8	38.9	40.2
Part-time employees	17.3	19.5	19.4	16.6
Men				
Average hourly earnings (\$)				
All employees	17.29	19.62	19.57	16.11
Full-time employees	18.04	19.82	19.79	17.06
Part-time employees	10.34	15.75	15.47	9.24
Average weekly earnings (\$)				
All employees	681.32	762.32	761.25	639.72
Full-time employees	735.79	786.14	785.91	707.59
Part-time employees	173.43	300.69	293.47	147.61
Average usual weekly hours, main job				
All employees	38.7	38.8	38.8	38.6
Full-time employees	41.1	39.8	39.9	41.7
Part-time employees	16.3	18.7	18.6	15.8
Women				
Average hourly earnings (\$)				
All employees	14.08	17.65	17.51	12.48
Full-time employees	14.91	17.84	17.73	13.48
Part-time employees	11.73	16.97	16.72	10.00
Average weekly earnings (\$)				
All employees	473.09	594.93	591.26	418.37
Full-time employees	565.72	665.17	661.80	516.80
Part-time employees	214.22	340.01	333.67	172.65
Average usual weekly hours, main job				
All employees	32.7	33.6	33.6	32.2
Full-time employees	38.0	37.4	37.4	38.3
Part-time employees	17.7	19.7	19.6	17.0

Source: Labour Force Survey

* Average for the January-to-September 1998 period.

** Includes both union members and persons who are not union members, but who are covered by collective agreements (for example, some religious group members).

*** Includes workers who are neither union members nor covered by collective agreements.

Table 3
Major wage settlements and inflation rates

Year	Average annual percentage increase in base wage rates			Annual change in Consumer Price Index
	Public sector*	Private sector*	Both sectors	
%				
1979	9.5	11.1	10.0	9.1
1980	10.9	11.7	11.1	10.2
1981	13.1	12.6	13.0	12.4
1982	10.4	9.5	10.2	10.9
1983	4.6	5.5	4.8	5.7
1984	3.9	3.2	3.6	4.4
1985	3.8	3.3	3.7	3.9
1986	3.6	3.0	3.4	4.2
1987	4.1	3.8	4.0	4.4
1988	4.0	5.0	4.4	4.0
1989	5.2	5.2	5.2	5.0
1990	5.6	5.7	5.6	4.8
1991	3.4	4.4	3.6	5.6
1992	2.0	2.6	2.1	1.5
1993	0.6	0.8	0.6	1.8
1994	-	1.3	0.3	0.2
1995	0.6	1.4	0.9	2.1
1996	0.5	1.8	0.9	1.6
1997	1.2	2.1	1.6	1.6
1998 **	1.5	1.6	1.5	1.0

Sources: Human Resources Development Canada, Workplace Information Directorate; Statistics Canada, Prices Division

Note: Major wage settlements refer to agreements involving 500 or more employees.

* Public sector employees are those working for government departments or agencies, crown corporations or publicly owned schools, hospitals or other institutions. Private sector employees are all other wage and salary earners.

** 1998 data refer to January to July only.

Table 4
Strikes and lockouts, workers involved, and person-days and working time lost

Year	Strikes & lockouts	Workers involved	Person- days not worked	Percentage of estimated working time
			'000	
1980	1,028	439	9,130	0.37
1981	1,049	341	8,850	0.35
1982	679	464	5,702	0.23
1983	645	329	4,441	0.18
1984	716	187	3,883	0.15
1985	829	162	3,126	0.12
1986	748	484	7,151	0.27
1987	668	582	3,810	0.14
1988	548	207	4,901	0.17
1989	627	445	3,701	0.13
1990	579	270	5,079	0.17
1991	463	253	2,516	0.09
1992	404	150	2,110	0.07
1993	381	102	1,517	0.05
1994	374	81	1,607	0.06
1995	328	149	1,583	0.05
1996	328	282	3,345	0.11
1997	279	254	3,570	0.12
1998 *	171	84	890	0.06

Source: Human Resources Development Canada, Workplace Information Directorate

* 1998 data refer to January to June only.

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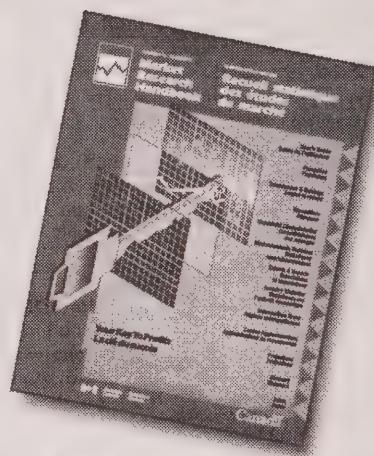
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What's new?

■ JUST RELEASED

■ 1999 Canada Year Book

The *Canada Year Book* is one of Canada's oldest and most reliable reference sources. First published in 1867, it provides an ongoing record of the social, economic and cultural life of Canada.

The 81st edition, with some 280 tables and charts, includes data from the 1996 Census, among other information. This edition also features the works of some of the country's finest photographers, portraying many aspects of the nation through some 120 images.

The 1999 *Canada Year Book* (Catalogue no. 11-402-XPE, \$54.95) is now available. The CD-ROM version will be available in early 1999. To order, contact your nearest Statistics Canada Regional Reference Centre or call 1 800 700-1033; fax (613) 951-1584 or 1 800 889-9734; e-mail: order@statcan.ca. For further information, contact Jonina Wood, Communications Division at (613) 951-1114. □

■ Latest on the labour force

The latest issue of *Labour Force Update* (Catalogue no. 71-005-XPB, \$29) compares labour market trends in Canada and the United States over the last two decades. The publication looks at trends in employment, labour force participation and unemployment rates, as well as providing a regional perspective. It also devotes a section to survey measurement differences between the Canadian and U.S. unemployment rates. Following are highlights:

- While output and job growth have been slower in Canada in the 1990s, the working age population has been growing at a faster rate here than in the United States. The combination of these factors has led to the emergence of a large gap between the U.S. and Canadian employment rates (proportion of working age population employed).
- The U.S. employment rate fell only slightly in the early 1990s, climbing to a new peak of 63.8% by 1997. In contrast, the Canadian rate fell much

more sharply, and has edged up only 0.7 percentage points since then, to reach 58.9% in 1997. Although men and women of all age groups were affected, Canadian men aged 15 to 24 and 55 to 64 contributed most to the gap.

- Over the last two decades, part-time work and self-employment have played a strong role in the Canadian labour market. In the 1990s alone, part-time workers accounted for almost 80% of overall employment growth in Canada, compared with only 27% in the United States.
- Between 1989 and 1997, self-employment increased by 39% in Canada and just 10% in the United States. In both 1989 and 1997, 12% of all those employed in the United States were self-employed, while in Canada, the rate grew from 14% to 18%.
- The Canadian unemployment rate increased by almost a third between 1980 and 1997, from 7.5% to 9.2%. The American rate decreased by almost a quarter, from 7.1% to 4.9%.
- When the Canadian unemployment rate is modified to better reflect U.S. survey concepts and definitions, the gap between the rates is reduced by an average 0.3 percentage points in the 1980s and 0.7 percentage points in the 1990s. This suggests that while measurement differences play a role, other factors account for most of the gap and its growth over the last two decades.

For additional information on this publication, contact Jeannine Usalcas at (613) 951-4720; fax (613) 951-2869; e-mail: usaljea@statcan.ca. □

■ The long-term prospects of children

Labour markets have changed dramatically over the course of the last two decades in ways generally perceived to have been detrimental to young Canadians. Some observers believe that this group, unlike those before, cannot expect to attain a standard of living higher than that of their parents. Furthermore, if these youths have experienced low income as children, they may somehow be predisposed to a lifetime of low income.

The research summarized in *Labour Markets, Social Institutions and the Future of Canada's Children* sheds light on these two themes. This book looks at the social institutions that redistribute income and well-being intergenerationally, and ultimately determine the long-term implications of deprivation during childhood. Following are highlights:

- The labour market outcomes of the young are only loosely tied to the incomes of the families in which they were raised. Much more than money determines how children get ahead in life.
- Young people's access to high quality education, as well as the educational and occupational background of their parents, contributes to the way in which children learn to make use of resources available to them.
- Lone parenthood may be an even greater influence than household income on children's start in life.
- Family instability echoes through the generations. Young adults whose parents went through a separation or divorce have, in turn, higher rates of family instability, and are more likely to be lone parents.

The publication aims to contribute to the understanding of youths and the labour market, to highlight some of the important information gaps, and to indicate some of the directions statistical agencies and policy makers might consider exploring.

For additional information about *Labour Markets, Social Institutions and the Future of Canada's Children* (Catalogue no. 89-553-XPB), contact Miles Corak, Business and Labour Market Analysis Division at (613) 951-9047; e-mail: coramil@statcan.ca. □

■ Article from Services Indicators

Can I help you?: The rise in household spending on services

Canadians allocated a larger proportion of their household spending to services in 1996 than they did a decade earlier. In 1996, 41 cents of every dollar spent by households went toward services rather than goods, up from 36 cents in 1986. The biggest factors were increased spending on communications services and on finance and real estate services. On average, \$12,735 per household was spent on services in 1996, up 7.8% in real terms (after adjusting for inflation) from 1986. Meanwhile, average spending on goods declined 13.9% to \$18,292.

Nearly half of the spending on finance and real estate services in 1996 went toward paying rent (\$2,295 per household), about the same dollar amount in real terms as in 1986. In contrast, mortgage interest expenses per household rose 18% to \$1,716.

Spending on financial services also rose rapidly, nearly doubling between 1986 and 1996 on a per-household basis. Household demand for mutual funds and other investment vehicles has risen as baby boomers increasingly plan ahead for their retirements. The proportion of households investing in registered retirement savings plans rose from 26% in 1986 to 39% in 1996.

On average, households spent \$1,099 on communications services in 1996, up 40% in real terms from 1986. This growth was due partly to the introduction of new telephone technologies such as automated answering services, call screen services, touch-tone access and so on. As well, Canadian households on average spent \$80 on communications services associated with the Internet and cellular phones in 1996, technologies virtually unknown in 1986. By 1996, 7% of all households had Internet access at home and 14% owned a cellular telephone. Expenses per household on cablevision services almost doubled from \$141 to \$254, owing, in part, to the strong demand for, and availability of, new cable, speciality and pay-TV channels.

On average, each household spent \$780 on amusement and recreation services, 19% more in real terms than in 1986. These services include movies, live events and gambling. Within this category was a 15% rise in spending on live stage performances such as big-budget theatre productions, and jazz, dance and comedy festivals.

For more information about this article (which appeared in the second quarter 1998 issue of *Services Indicators* [Catalogue no. 63-016-XPB]), contact Don Little, Services Division at (613) 951-6739; e-mail: litdon@statcan.ca. □

■ Survey of Consumer Finances looks at earnings of two-partner families

In 1996, the average income of two-partner families in which both had earnings matched the 1989 record level, while that of families with only one earning partner was about 7% lower than in 1989. Overall, the average income of all two-partner families was \$60,600 in 1996, up marginally from 1995 but still 3% lower than the 1989 peak (after adjusting for inflation).

The percentage of dual-earner families has been relatively stable during the 1990s. This follows more than two decades of increased labour force participation among women. However, the proportion of families in which neither partner had earnings has gradually increased since the late 1960s, reflecting the demographic trends of the aging population, especially the recent trend to earlier retirement.

In almost half of dual-earner families (48%), both partners worked full time all year in 1996. While this proportion has trended upwards, its increases and decreases have reflected labour market conditions during periods of recession or expansion.

Characteristics of Dual-earner Families, 1996 (Catalogue no. 13-215-XIB, \$21) is now available. Microdata files containing data on the 1996 incomes and earnings of economic families and individuals aged 15 years and over, along with socio-demographic characteristics, are also now available. (Catalogue nos. 13M0001XDB, 13M0002XDB, 13M0003XDB, 13M0004XDB, 13M0005XDB, \$2,000/each.) For further information or to order custom tabulations, or to enquire about concepts, methods and data quality, contact Client Services, Income Statistics Division at (613) 951-7355 or 1 888 297-7355; fax (613) 951-3012; e-mail: income@statcan.ca. □

■ Industrial concentration

Industrial concentration ratios for leading enterprises are available by four-digit industry level from the Annual Survey of Manufacturing data. The series covers the 1965-to-1995 period for most industries.

In most industries, the concentration ratios for the top 4, 8 and 12 leading enterprises increased from 1994 to 1995, while the ratios for the top 16, 20 and 50 remained stable. Most of the increases were between 1% and 2%; decreases were insignificant (less than 1%).

Industrial Organization and Concentration in the Manufacturing, Logging and Mining Industries is now available. Data are also available through custom tabulation.

For further information, contact Jean-Marie Houle, Manufacturing Disclosure and Dissemination Section at (613) 951-9497; fax (613) 951-3522; e-mail: manufact@statcan.ca. To enquire about concepts, methods and data quality, contact Daniela Ravindra, Manufacturing, Construction and Energy Division at (613) 951-3514. □

■ Analytical Studies Branch research papers series

An Explanation of the Increasing Age Premium
Constantine Kapsalis
Research Paper Series no. 112

This study examines the reasons for the significant increase in the "age premium" from 1981 to 1994. The age premium refers to the percentage difference in hourly earnings between "younger" (25 to 34) and "older" (45 to 54) workers. In 1994, the hourly rate of older men was 32.4% higher than that of their younger counterparts. The corresponding age premium for women was 15.5%. The premium for men increased by 15.7 percentage points over the period; that for women grew by 19.5 points.

One explanation for the rise is the dramatic improvement in the level of education of older workers over the last 14 years. For example, from 1981 to 1994, the percentage of older male workers with Grade 10 education or less declined from 41.9% to 19.6%, while the percentage with postsecondary diplomas or degrees increased from 32.1% to 51.7%. Similar trends took place among women. Shift-share analysis shows that the narrowing of the education gap between older and younger workers explains 44% of the age premium rise among male employees and 50% of that among female employees.

What is Happening to Earnings Inequality and Youth Wages in the 1990s?
Garnett Picot
Research Paper Series no. 116

The increasing inequality of employment earnings in Canada during the 1980s, particularly among men, has been well documented. This paper examines inequality trends in the 1990s. It finds that earnings inequality and polarization increased only slightly between the mid-1980s and mid-1990s. Much of the decline in the earnings of the young occurred in and around the 1981-82 recession. Their earnings failed to recover during the economic expansion, and fell again during the 1990s. But unlike the story for the population as a whole, this drop is related largely to declining hourly wages, not to changing relative hours worked.

This analysis concludes that the relative stability in overall earnings inequality since the mid-1980s masks a number of offsetting underlying trends. Some groups of workers are making gains (notably older workers and women), while others are losing (notably younger workers and men).

To order studies in the Research Paper Series, contact your nearest Statistics Canada Regional Reference Centre, or write to Publications Review Committee, Analytical Studies Branch, 24th floor, R.H. Coats Building, Ottawa, Ontario K1A 0T6. Or phone (613) 951-1804; fax (613) 951-5403. □

■ UPCOMING CONFERENCE

■ ***Statistics Canada, Economic Conference '99: Probing the New Economic Realities March 23-24 1999, Ottawa***

Economies are constantly evolving. But because of such factors as new information technologies, globalization, the environment, and deficit reduction, economic change in the 1990s is seen by some as being fundamentally different from that of the past. Statistics Canada's 10th annual economic conference,

to be held at the Ottawa Congress Centre, provides a forum for the exchange of empirical research by business, government, research centres and labour.

Guest speakers will address plenary sessions on issues arising from changes in the economic and technological environment. Conference participants will discuss, among other topics, implications of technological change, income inequality, job stability and quality, business strategies, multinationals, the liberalization of trade and payments, globalization of production, trends in economic growth, the output gap, government operations, public sector downsizing and privatization, innovations in service delivery, social programs and safety nets, and growing expectations of volunteerism.

For further information, contact Jocelyne Lepage, Conference Co-ordinator, at (613) 951-1135; fax (613) 951-0318; e-mail: lepacjoc@statcan.ca; or visit our website at <http://www.statcan.ca/english/conferences>. □

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This index lists articles published in Perspectives on Labour and Income (*Catalogue no. 75-001-XPE*) since its inception (Summer 1989). It is updated once a year and published in the Winter issue.

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Key labour and income facts

The following is a guide to data sources for labour market, business, income and earnings, pension, education and other household topics. Each quarter, this section presents charts and analysis featuring one or more of these sources. For general inquiries, please contact Joanne Bourdeau at (613) 951-4722; e-mail: bourjoa@statcan.ca.

Administrative data

Small area and administrative data
Frequency: Annual
Contact: Customer Services
(613) 951-9720

Business surveys

Annual Survey of Manufactures
Frequency: Annual
Contact: Richard Vincent
(613) 951-4070

Business Conditions Survey of Manufacturing Industries
Frequency: Quarterly
Contact: Claude Robillard
(613) 951-3507

Census

Census labour force characteristics
Frequency: Quinquennial
Contact: Michel Côté
(613) 951-6896

Census income statistics
Frequency: Quinquennial
Contact: Abdul Rashid
(613) 951-6897

Employment and income surveys

Labour Force Survey
Frequency: Monthly
Contact: Nathalie Caron
(613) 951-4168

Survey of Employment, Payrolls and Hours
Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Help-wanted Index

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Employment Insurance Statistics Program

Frequency: Monthly
Contact: Sylvie Picard
(613) 951-4090

Major wage settlements

Bureau of Labour Information
(Human Resources
Development Canada)
Frequency: Quarterly
Contact: (819) 997-3117

Labour income

Frequency: Quarterly
Contact: Anna MacDonald
(613) 951-3784

Survey of Labour and Income Dynamics

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Survey of Consumer Finances

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Household Facilities and Equipment Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

Family Expenditure Survey

Frequency: Annual
Contact: Client Services
(613) 951-7355 or
1 888 297-7355

General Social Survey

Education, work and retirement
Frequency: Occasional
Contact: Client Services
(613) 951-5979

Social and community support

Frequency: Occasional
Contact: Client Services
(613) 951-5979

Time use

Frequency: Occasional
Contact: Client Services
(613) 951-5979

Pension surveys

Pension Plans in Canada Survey
Frequency: Annual
Contact: Thomas Dufour
(613) 951-2088

Quarterly Survey of Trusteed Pension Funds

Frequency: Quarterly
Contact: Thomas Dufour
(613) 951-2088

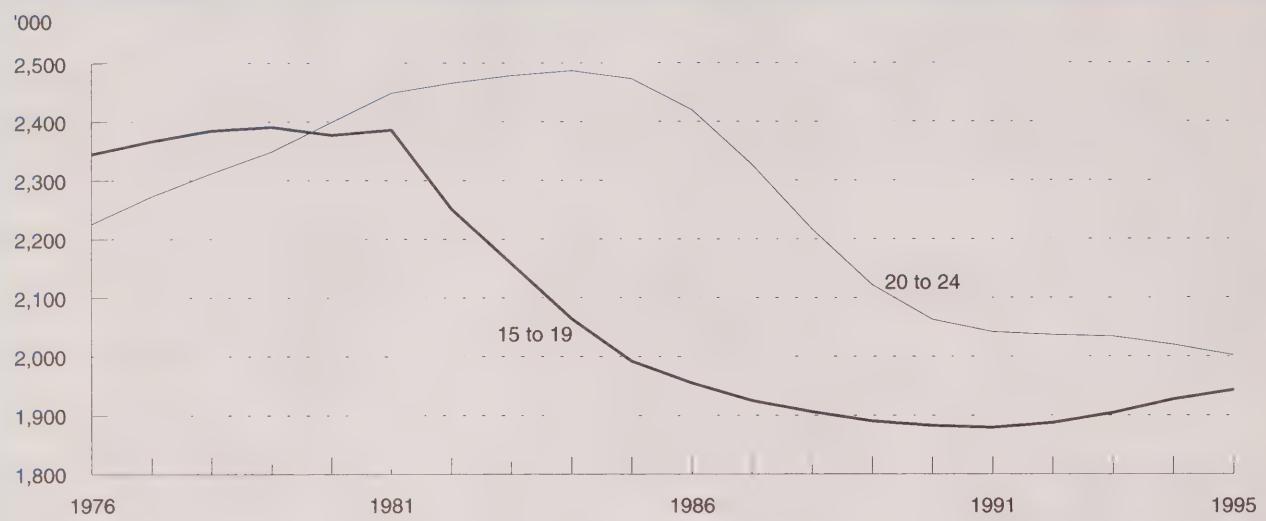
Special surveys

Survey of Work Arrangements
Frequency: Occasional
Contact: Ernest B. Akyeampong
(613) 951-4624

Adult Education and Training Survey
Frequency: Occasional
Contact: Steve Arrowsmith
(613) 951-0566

Graduate Surveys (Postsecondary)
Frequency: Occasional
Contact: Bill Magnus
(613) 951-4577

The youth population has declined.



Source: Labour Force Survey

The youth population declined over the 1980s

The size of the youth population (aged 15 to 24) decreased over the 1980s by 800,000. During the 1990s, the number of youths has remained about the same.

As a proportion of people in the labour force aged 15 to 64, the youth population has been declining. In 1976, people aged 15 to 24 accounted for 30% of the labour force.

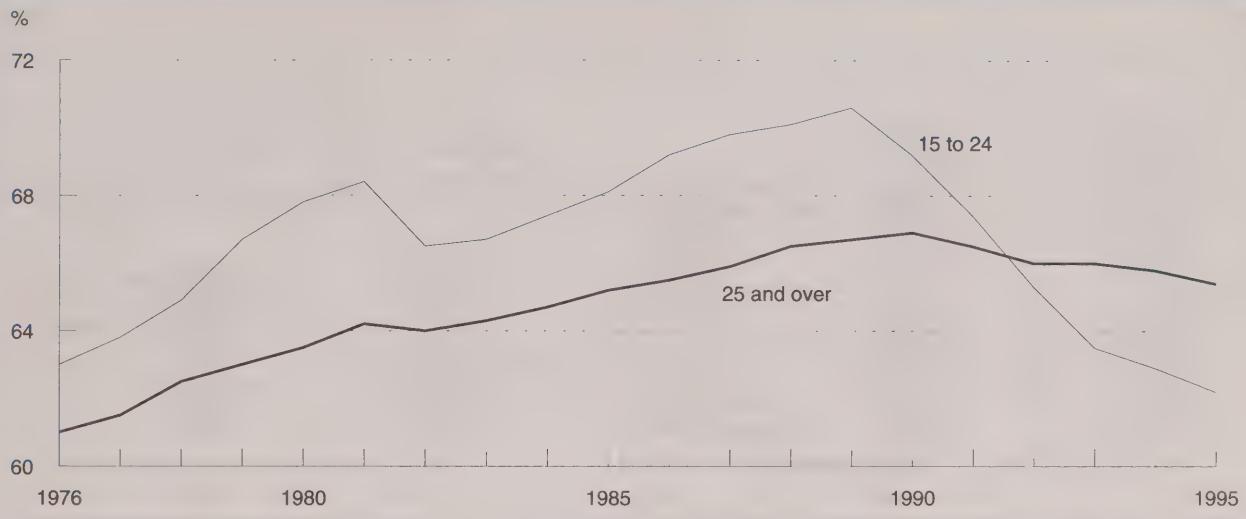
By 1995, this proportion had declined to 20%. While the youth population is projected to grow over the next 20 years, its share of the labour force is expected to continue to decline slightly, reaching 18% in 2016.¹

¹ Based on Statistics Canada population projections, 2006 to 2016, medium-growth scenario.

Charts, tables and text for this issue's "Key labour and income facts" were adapted from *High School May Not Be Enough: An Analysis of Results from the School Leavers Follow-up Survey, 1995*. Ottawa: Human Resources Development Canada and Statistics Canada, 1998. Statistics Canada Catalogue no. 81-585-XPE. For more information, contact Louise Boyer, Applied Research Branch, Human Resources Development

Canada at (613) 994-3695; fax (613) 953-8584; louise.boyer@spg.org.ca or Shelley Harris, Centre for Education Statistics, Statistics Canada at (613) 951-1532; fax (613) 951-9040; harrshe@statcan.ca. The publication is also available on the Internet at: http://www.hrdc-drhc.gc.ca/hrdc/corp/stratpol/arbsite/research/rsctoc_e.html.

Labour force participation among youths has declined in recent years.



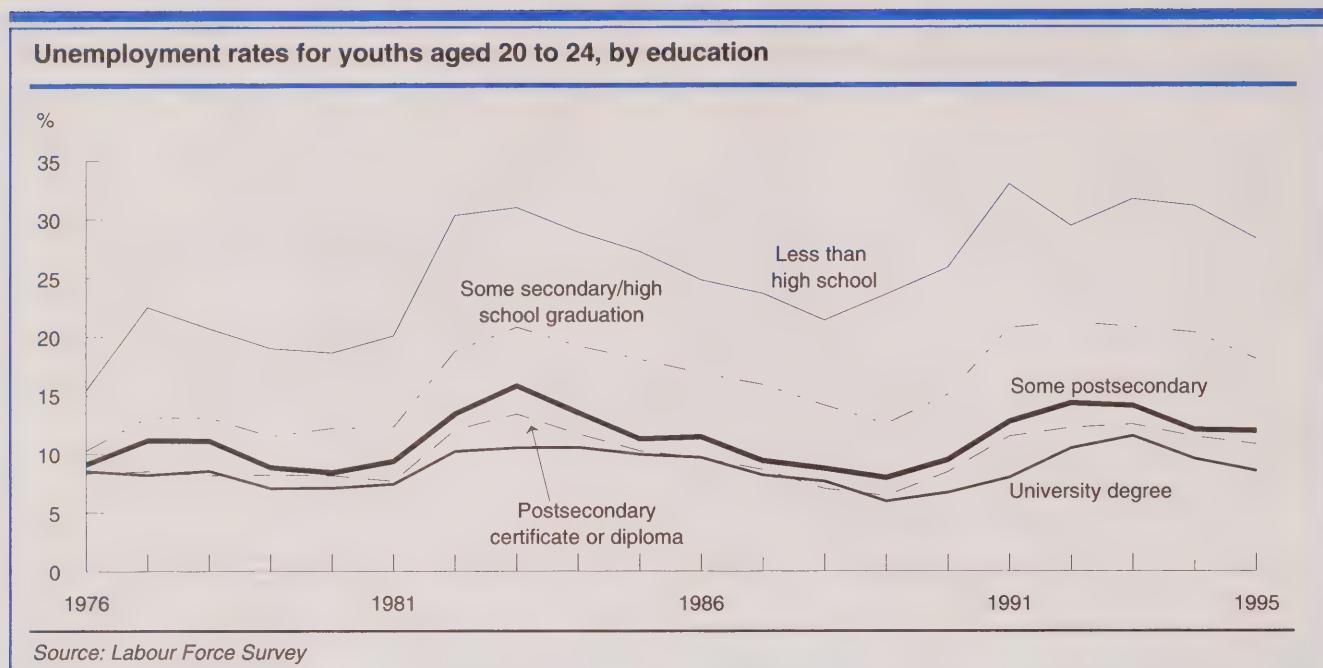
Source: Labour Force Survey

Postsecondary participation has increased

Despite declines in the size of the youth population, postsecondary enrolments have continued to increase throughout the 1980s and 1990s. As a result, an increasing proportion of youths are in school. Full-time enrolment for those aged 15 to 24 increased from about 40% in the early 1980s to 56% in 1995. Although enrolment for 15 to 19 year-olds plateaued at around 80%, that for 20 to 24 year-olds more than doubled, to about 33%.

Youths have been participating less in the labour market

Coinciding with the increased likelihood of being in school, relatively few young people have been working or looking for work in recent years. Labour force participation among people aged 15 to 24 has fallen since the late 1980s.



Youths experience higher unemployment than do adults

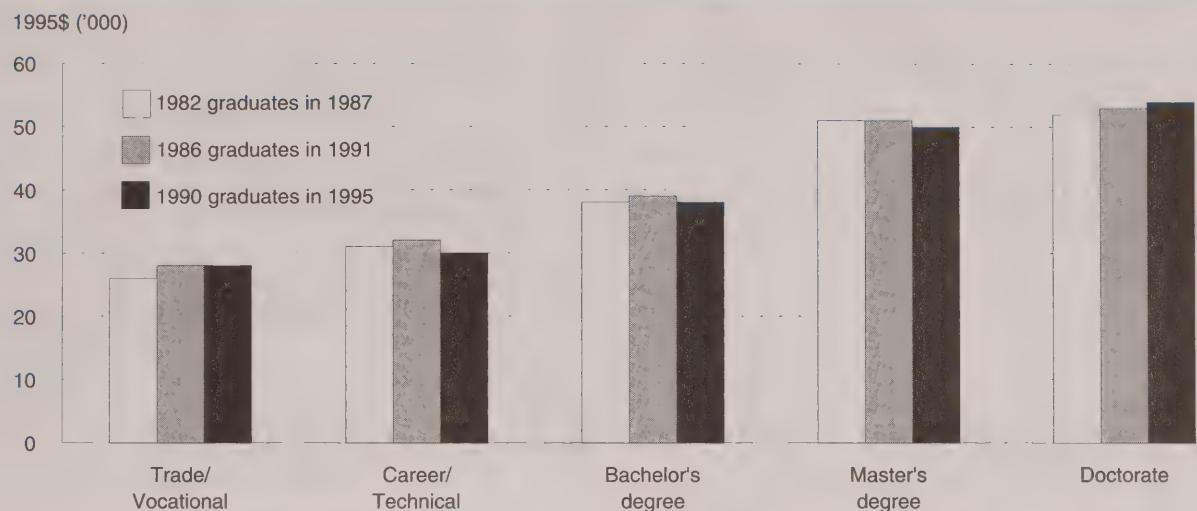
The youth unemployment rate has consistently exceeded that of the adult population and has been more affected by the business cycle. Young workers are often the "last hired and first fired" because of their relative lack of seniority and experience. As a result, they have a higher turnover rate and, therefore, a higher unemployment rate than their older counterparts (historically, about twice as high).

In 1991, when the initial School Leavers Survey (SLS) was conducted, the Canadian economy was in recession. Since then, unemployment rates have remained

persistently high, despite the recovery. By 1995, the labour force participation and unemployment rates of youths had not yet fully benefited from gains in economic growth.

Prospects for less-educated youths have deteriorated

Unemployment rates are much lower for young people with postsecondary education than for those with less education. This finding has been consistent over the past two decades. The differences have been most pronounced in recent years, largely because the demand for labour has been shifting in favour of more highly skilled workers.

Median earnings of postsecondary graduates working full time (5 years after graduation)

Source: National Graduates Survey

Average earnings of younger workers declining

The average earnings of young men and women have declined substantially since the early 1980s. The gap in earnings between 17 to 24 year-olds and older age groups has widened, partly because larger numbers of students are combining work and full-time school. However, increases in part-time and seasonal employment among non-students are also behind the decrease in average earnings for youths.

Youths with higher education fare better

Despite the effects of the early 1990s recession, the employment prospects of postsecondary graduates have remained stable. The unemployment rate of university-educated 20 to 24 year-olds has followed the ups and downs of the economy, but has displayed no upward trend. In addition, National Graduates Survey results indicate that the proportion of postsecondary graduates working full time two and five years after graduation has remained stable since the class of 1982. Similarly, the earnings prospects of educated youths have remained stable since the early 1980s.

High school non-completion rates of youths aged 20 in 1991 and 24 in 1995

	1991 (age 20)	1995 (age 24)
%		
Canada	18	15
Newfoundland	24	19
Prince Edward Island	25	21
Nova Scotia	22	17
New Brunswick	20	16
Quebec	22	19
Ontario	17	14
Manitoba	19	14
Saskatchewan	16	11
Alberta	14	11
British Columbia	16	13

Sources: *School Leavers Survey, 1991;*
School Leavers Follow-up Survey, 1995

Youths aged 22 to 24 by sex and education

	Both sexes	Men	Women
	%		
Total	100	100	100
High school leavers	14	18	10
Without further education or training	11	13	8
With further education or training	3	5	2
High school graduates	85	81	89
Without further education or training	17	19	15
With further education or training	69	63	75
Some postsecondary	14	14	13
University	10	9	12
Other postsecondary	25	20	30
Postsecondary in progress	20	20	20

Source: *School Leavers Follow-up Survey, 1995*

The 1991 SLS interviewed youths aged 18 to 20. Because many of the 18 and 19 year-olds were still in high school, only 20 year-olds were used to calculate the high school non-completion rate (also commonly referred to as the "high school leaver rate"). In 1991, 18% of 20 year-olds were not in high school and had not received a high school graduation certificate, diploma or its equivalent.

By 1995, the young people interviewed in the School Leavers Follow-up Survey (SLF) were aged 22 to 24. To see how the high school non-completion rate had changed over the four-year period, only 24 year-olds (the same youths who were aged 20 in 1991) were examined. The proportion without a high school diploma in 1995 was 15%.

The high rate of high school completion and the low rate of non-completion among 22 to 24 year-olds in 1995 are the result of three factors: the high completion rate among those who were high school continuers in 1991, the one in four leavers who had returned to school and graduated, and the substantial proportion of those who were already graduates as of 1991.

Of youths aged 22 to 24 in 1995, 69% were high school graduates with further education or training: 14% had some postsecondary education or training, 10% were university graduates, 25% were other postsecondary graduates, and 20% were still postsecondary students at the time of the survey. Some 17% were high school graduates with no further education or training.

While a good proportion of young people had continued their education or training beyond high school, substantial numbers still had relatively low levels of education: 14% were high school leavers, about three-quarters of whom had not pursued any further education or training. All together, nearly 3 in 10 youths aged 22 to 24 had relatively low levels of educational attainment – in a society in which most young people have postsecondary qualifications or are in the process of obtaining them.

Men (18%) were more likely than women (10%) to be high school leavers; conversely, women (89%) more often than men (81%) were graduates. Male leavers, however, were more likely to have further education or training (most often in trade, vocational or apprenticeship programs). In contrast, a larger proportion of women (75%) than of men (63%) were high school graduates with postsecondary education or training.

Timing of first reference jobs* of youths aged 22 to 24, by sex and education

	Total	Leavers	High school graduates	With some post-secondary	University graduates	Other post-secondary graduates	Post-secondary students
%							
Total							
Both sexes	36	44	52	44	17	31	29
Men	39	46	53	44	18	34	32
Women	33	41	50	43	17	29	25
First reference job on leaving high school full time							
Both sexes	15	12	22	18	8	12	16
Men	17	13	22	16	--	15	19
Women	14	10	22	20	--	10	14
First reference job within six months of leaving high school full time							
Both sexes	21	32	30	26	9	19	13
Men	22	33	31	28	9	19	13
Women	19	31	28	23	9	19	11

Source: School Leavers Follow-up Survey, 1995

* See Definitions.

With the exception of those who had completed a university degree by the time of the survey, most young people had reference jobs immediately after leaving high school.

Students who worked more than 20 hours a week while in high school were more likely to leave school early (Gilbert, S. et al., 1993); if they did leave, many continued to work those hours, often for more than six months. More than one-third (36%) of all youths aged 22 to 24 had a reference job on or within six months of leaving full-time

high school. This was more often the case for those who had graduated from high school but had not continued their education. Those who had earned a university degree by the time of the 1995 survey were least likely to have a reference job upon leaving high school, probably because they had devoted their time to their studies.

Gilbert, S. et al. *Leaving School: Results from a National Survey Comparing School Leavers and High School Graduates 18 to 20 Years of Age*. Ottawa: Human Resources Development Canada and Statistics Canada, 1993: Chapter 6.

Labour force status

	In the labour force			Unemployment rate		
	Both sexes	Men	Women	Both sexes	Men	Women
	%					
Population 15 and over	65	73	57	10	10	9
Youths 22 to 24						
Leavers	81	91	63	21	17	30
High school graduates	85	92	77	13	14	11
With some postsecondary	90	96	84	15	13	16
University graduates	96	96	97	9	8	9
Other postsecondary graduates	96	98	94	10	12	9
Postsecondary students	60	58	61	10	--	--

Sources: *School Leavers Follow-up Survey, 1995; Labour Force Survey, 1995*

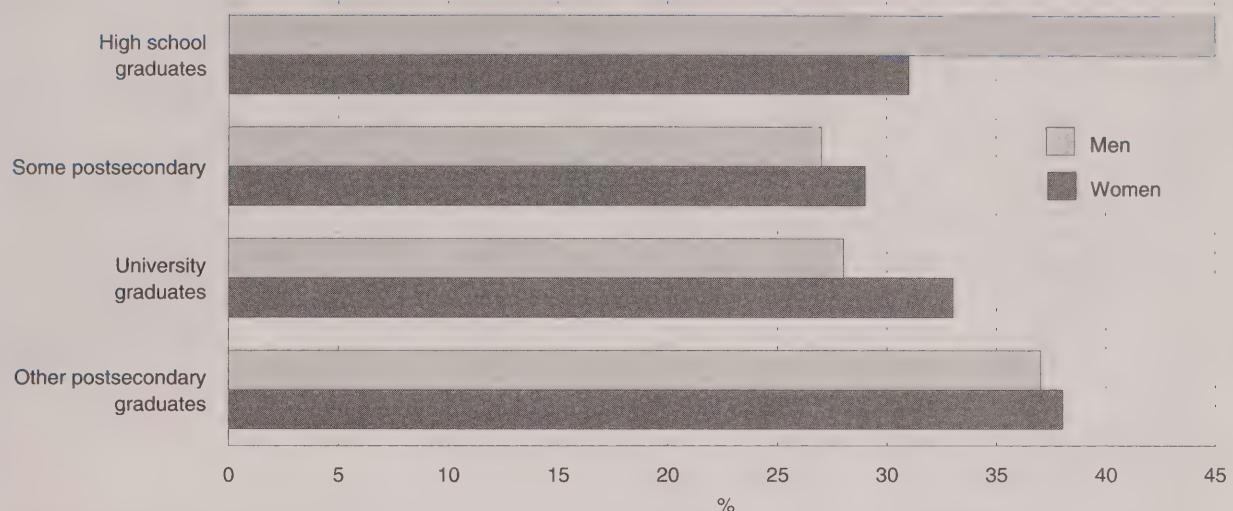
About 84% of 22 to 24 year-olds were participating in the labour force at the time of the survey. More than one-half of the 16% of youths who were not in the job market were full-time postsecondary students. The rest were mainly female leavers or high school graduates without further education or training.

Only 63% of women in the leavers group were labour force participants, compared with 91% of men in this group. Unemployment rates were highest for high school leavers:

over 30% of the women were unemployed and only 44% were employed. About 63% of female leavers had one or more children: almost 90% of those not in the labour force and 53% of those unemployed were mothers, compared with only 22% of female leavers who were employed.

Unemployment rates were lower for groups with higher levels of education, with one exception: women with some postsecondary education appeared to have a higher rate of unemployment than high school graduates.

Proportion of youths working in jobs requiring less education than they had completed



Source: School Leavers Follow-up Survey, 1995

A large number of youths worked in jobs requiring less education than they had completed. The extent of this phenomenon was estimated for four groups: high school graduates, those with some postsecondary education, university graduates, and other postsecondary graduates.

About 23% of male high school graduates with no postsecondary education were working in jobs such as security guards, janitors, and kitchen helpers. A further 22% were working in jobs that did not require a high school diploma – jobs such as truck driving, warehousing, and mechanical assembling. In total, 45% of those without further education were working in jobs that did not require a high school diploma. About 13% of female high school graduates without postsecondary education were working as cashiers, kitchen helpers, and light duty cleaners, or similar positions. A further 18% had jobs that did not require a high school diploma – such as housekeeping and working in beauty salons. The overall rate of 31% was

considerably lower than that of men of this group, primarily because a higher percentage of women worked in clerical jobs, which usually require a high school diploma.

Men with postsecondary education were much more likely than those without to be working in jobs usually or always requiring a high school diploma. In addition, a larger proportion were working in sales and service. The general patterns of employment differed little for women in the two groups.

Many of these jobs were really still “student” jobs. Over time, young people who gained the appropriate skills and experience tended to move out of these “student” jobs and into other employment. Some also moved from lower to higher levels of skill, especially those with postsecondary qualifications. Nevertheless, at this early stage in the transition process, many well-educated youths continued to work at relatively low skill levels.

Industry of employment						
	Total	Goods production	Distribution	Business services	Consumer services	Public services
%						
Both sexes						
15 and over	100	27	12	12	27	23
22 to 24	100	22	11	13	35	19
Non-students	100	25	12	14	31	19
Leavers	100	40	15	5	37	2
High school graduates	100	27	14	9	41	9
With some postsecondary	100	25	13	11	34	16
University graduates	100	19	6	24	19	33
Other postsecondary graduates	100	19	10	17	26	27
Postsecondary students	100	--	--	10	55	24
Men						
15 and over	100	38	16	11	22	15
22 to 24	100	32	14	11	31	11
Non-students	100	36	16	12	28	9
Leavers	100	48	18	--	27	--
High school graduates	100	35	18	--	36	--
With some postsecondary	100	33	17	--	29	--
University graduates	100	25	--	32	--	22
Other postsecondary graduates	100	34	15	13	24	13
Postsecondary students	100	--	--	--	55	22
Women						
15 and over	100	14	7	14	32	33
22 to 24	100	11	7	15	39	29
Non-students	100	12	7	16	36	29
Leavers	100	17	--	--	68	--
High school graduates	100	14	--	14	49	--
With some postsecondary	100	14	8	14	42	23
University graduates	100	15	--	--	21	41
Other postsecondary graduates	100	--	--	20	28	37
Postsecondary students	100	--	--	--	56	27

Sources: School Leavers Follow-up Survey, 1995; Labour Force Survey, 1995

Over the past 15 years, jobs in service-producing industries have grown in importance. Only 22% of 22 to 24 year-olds worked in the goods-producing sector, the remainder in services and distribution industries. Consumer services predominated, accounting for 35% of employment for this age group generally, and 55% of jobs for postsecondary students alone. This industry also provided nearly one-third (31%) of employment for non-students in this age group, still slightly more than for the employed population as a whole (27%).

The industries in which young people were employed varied considerably by employees' sex and education. For example, male school leavers were more likely than others

to work in goods-producing industries, mainly in primary industries and in construction. Even among this group, however, 27% worked in consumer services. Among women, the rates were much higher. About 68% of school leavers, 49% of high school graduates and 21% of university graduates worked in consumer services – a far greater proportion than that of their male counterparts in each case.

University and other postsecondary graduates tended to work in business services, education and health, reflecting the skills and credentials often required in these industries.

Prevalence of part-time employment

	Both sexes	Men	Women
	%		
Employed 15 and over	19	11	28
Employed 25 and over	10	6	24
Employed 22 to 24	25	20	30
Non-students	15	10	21
Leavers	11	7	24
High school graduates	13	9	19
With some postsecondary	19	15	24
University graduates	18	--	24
Other postsecondary graduates	15	--	18
Postsecondary students	78	79	78

Sources: *School Leavers Follow-up Survey, 1995; Labour Force Survey, 1995*

Reasons for part-time work, youths aged 22 to 24

	Both sexes	Men	Women
	%		
Total	100	100	100
Going to school, training	48	55	42
Could find only part-time work	29	27	32
Full-time work was less than 30 hours per week	10	9	11
Personal/family responsibilities	4	--	6
Other reasons	9	--	9

Source: *School Leavers Follow-up Survey, 1995*

The 1995 SLF asked for details about the *main job* held by each respondent in the previous week. (The main job was the one at which the respondent usually worked the most hours per week.) In 1995, one in four 22 to 24 year-olds with jobs worked part time in the main job—30% of women and 20% of men. Excluding students, however, only 15% were in part-time jobs—21% of women and 10% of men. This was comparable to the proportions for workers aged 25 and over. Non-student men in the younger group were somewhat more likely than older men to be employed part time, while non-student women were somewhat less likely to be employed part time than women 25 and over.

Attendance at school or training programs was the largest single reason for part-time employment for both men and women. Women were more likely than men to be working part time because of personal or family responsibilities.

Involuntary part-time employment as a percentage of total part-time employment

	Both sexes	Men	Women
	%		
Employed 15 and over	32	33	31
Employed 15 to 24	27	25	28
Employed 25 and over	35	42	33
Employed 22 to 24	29	27	32
Non-students	43	41	44
Leavers	41	--	--
High school graduates	36	--	39
With some postsecondary	25	--	27
University graduates	47	--	43
Other postsecondary graduates	57	--	57
Postsecondary students	15	--	14

Sources: *School Leavers Follow-up Survey, 1995; Labour Force Survey, 1995*

Multiple jobholding

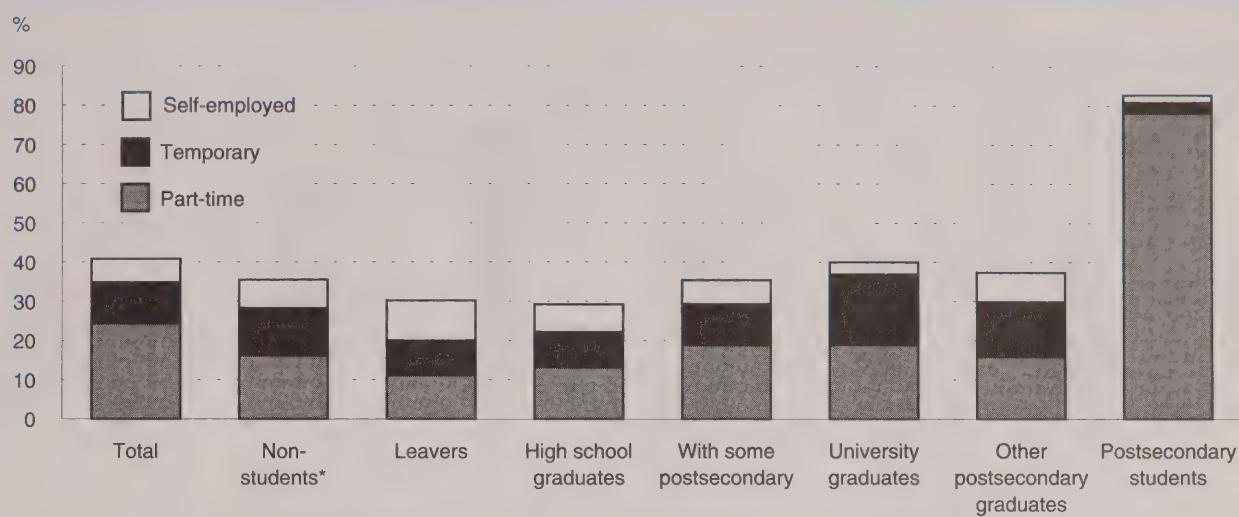
	Both sexes	Men	Women
	%		
Employed 15 and over	5	4	5
Employed 22 to 24	13	10	15
Leavers	8	7	--
High school graduates	9	5	15
With some postsecondary	15	15	14
University graduates	17	--	19
Other postsecondary graduates	15	10	18
Postsecondary students	12	--	14

Sources: *School Leavers Follow-up Survey, 1995; Labour Force Survey, 1995*

About 3 in 10 young part-time workers (32% of women and 27% of men) could not find full-time work. Among non-students, involuntary part-time work represented a much higher proportion of total part-time work – 44% for women and 41% for men. Overall, women experienced much more involuntary part-time employment than men. Among all women aged 22 to 24 who had jobs, and who were not primarily students, about one in 10 worked part time because they could not find a full-time job; for men, this rate was much lower.

Multiple jobholding among 22 to 24 year-olds was much more common than among workers overall (13% versus 5%), especially for women with postsecondary qualifications. About 19% of female university graduates were multiple jobholders whose main jobs tended to require lower skills than those of their male counterparts. About 80% of the male university graduates worked in managerial, professional or technical jobs. Only 20% of the women had main jobs at this level; they typically worked as sales clerks or cashiers. Among those with other postsecondary qualifications, women were much more likely to have multiple jobs, although gender disparity was not so evident in the type of job. About 50% of both men and women had their main job at the managerial, professional or technical level.

Non-standard employment as a percentage of total employment, youths aged 22 to 24



Source: School Leavers Follow-up Survey, 1995

Note: "Temporary" and "self-employment" are mutually exclusive categories. Youths with both temporary and part-time employment are counted only once, as part-timers.

* The "non-students" category is a subtotal comprising the next five categories.

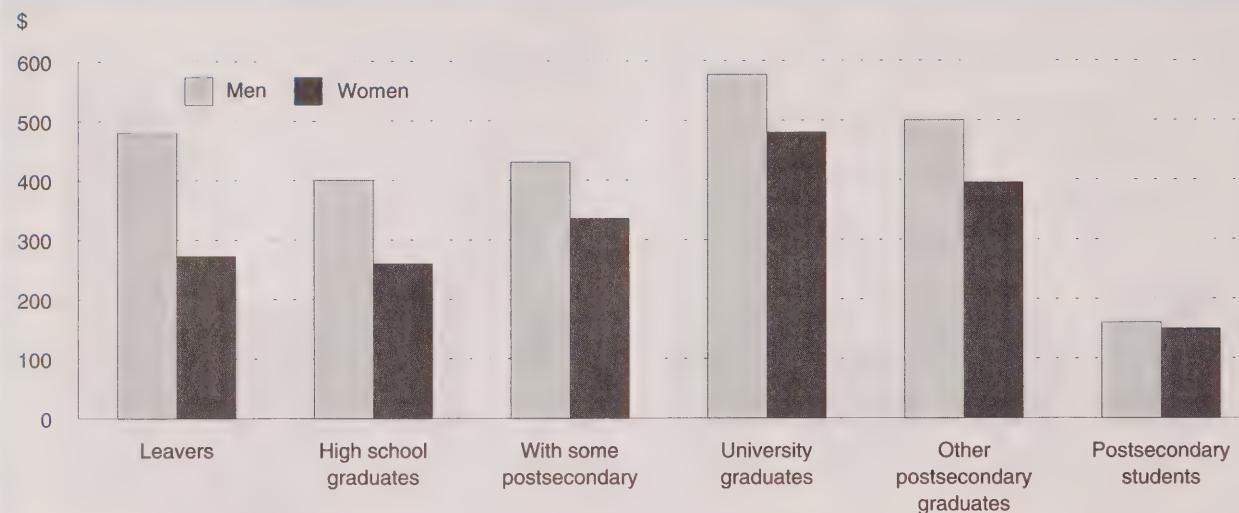
Temporary employment – jobs for which there was a definite termination date – accounted for over 18% of all employment, ranging from 13% among leavers and high school graduates to over 20% among those with further education. Men's and women's rates were similar.

Self-employment accounted for less than 10% of all jobs. Its incidence was highest among male leavers (11%) and among men with some postsecondary education (12%). For men in these groups, self-employment was concentrated in technical and intermediate blue-collar occupations, such as truck driving and craftwork. Self-employed men with postsecondary qualifications tended to work in professional and technical occupations, such as financial analysis and computer programming, skilled

trades, and retail and wholesale sales occupations. Among women, self-employment was also highest among school leavers, typically in sales and service occupations. Over half of self-employed women with postsecondary qualifications worked in retail trade.

When temporary and self-employment are added to part-time employment, the ratio of non-standard to total employment is 41% for all groups. When students are excluded, the percentage is 36%. This compares with 31% for the workforce as a whole during 1995 (Betcherman and Lowe, 1997).

Betcherman, G. and G. S. Lowe. *The Future of Work in Canada: A Synthesis Report*. Ottawa: Canadian Policy Research Networks, 1997.

Median weekly wages, by sex and education, youths aged 22 to 24

Source: School Leavers Follow-up Survey, 1995

Among non-students, male university graduates had the highest median weekly wage (\$577), while female leavers had the lowest (\$260).² Women's earnings were significantly lower than men's in all groups except students, reflecting, in part, their higher rates of part-time employment. Among full-time earners only, the gap between men's and women's earnings was slightly less for all groups except students: in this group, men's earnings were 36% higher than women's.

Since multiple jobholding is higher among women and among those with higher levels of education, wages from additional jobs would probably increase the difference in total income among educational groups and decrease the difference between men and women.

2 The data on earnings do not include income from additional jobs by multiple jobholders. Nor are the effects of social transfers on total income shown.

Definitions

High school leavers (or leavers)

Youths who at a given reference time (either 1991 or 1995) had left high school without graduating.

High school leaver rate (or leaver rate or high school non-completion rate)

The proportion of people in a specified age group who had left high school without graduating at a given point in time.

High school continuers (or continuers)

Youths who at a given reference time (either 1991 or 1995) were high school students. In 1995, high school continuers accounted for less than 1% of youths aged 22 to 24, so are not analyzed as a separate category.

High school graduates (or graduates)

Youths who at a given reference time (either 1991 or 1995) had graduated from high school. A further distinction is made between high school graduates with and without postsecondary schooling (further education or training toward a degree, diploma or certificate). Those with postsecondary education or training are further subdivided. (See *some postsecondary, university graduates, other postsecondary graduates* and *postsecondary students*.)

Job last week (or last week's job)

This was the job held during the week before the 1995 survey. It may or may not also have been a reference job; therefore, "job last week" includes those that were less than 20 hours per week or that lasted less than six months.

Main job

The job at which the respondent usually worked the most hours per week.

Other postsecondary graduates

A sub-category of high school graduates (with postsecondary education or training toward a degree, diploma or certificate) who had completed a non-university postsecondary program.

Some postsecondary (graduates with)

A sub-category of high school graduates (with postsecondary education or training toward a degree, diploma or certificate) who had not completed a postsecondary program and were not students at the time of the survey.

University graduates

A sub-category of high school graduates (with postsecondary education or training toward a degree, diploma or certificate) who had completed a university program by the time of the 1995 School Leavers Follow-up Survey (SLF).

Postsecondary students

A sub-category of high school graduates (with postsecondary education or training toward a degree, diploma or certificate) who were postsecondary students at the time of the 1995 SLF.

Reference job

A job that involved at least 20 hours of work per week for a period of at least six consecutive months. The 1995 SLF collected information on the first and the most recent reference job held. For some respondents, this may have been the same job. Others may never have had a reference job.

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The various ways that young people move among and within the worlds of education, training and work.



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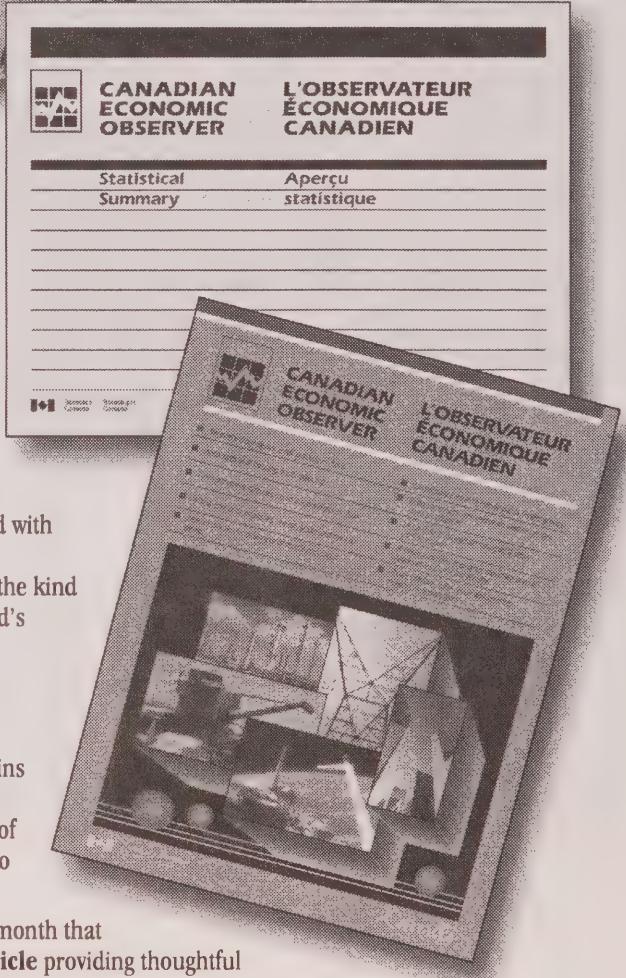
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■ Jobs versus employment

An update on the discrepancy between the number of jobs in the economy and the number of employed.

■ Female/male earnings ratios

A comparison of female/male earnings ratios from various data sources, principally the Labour Force Survey and the Survey of Consumer Finances.

■ RRSPs and the self-employed

An analysis of RRSP participation and contribution rates of the self-employed in the 1990s.

■ Involuntary part-time workers

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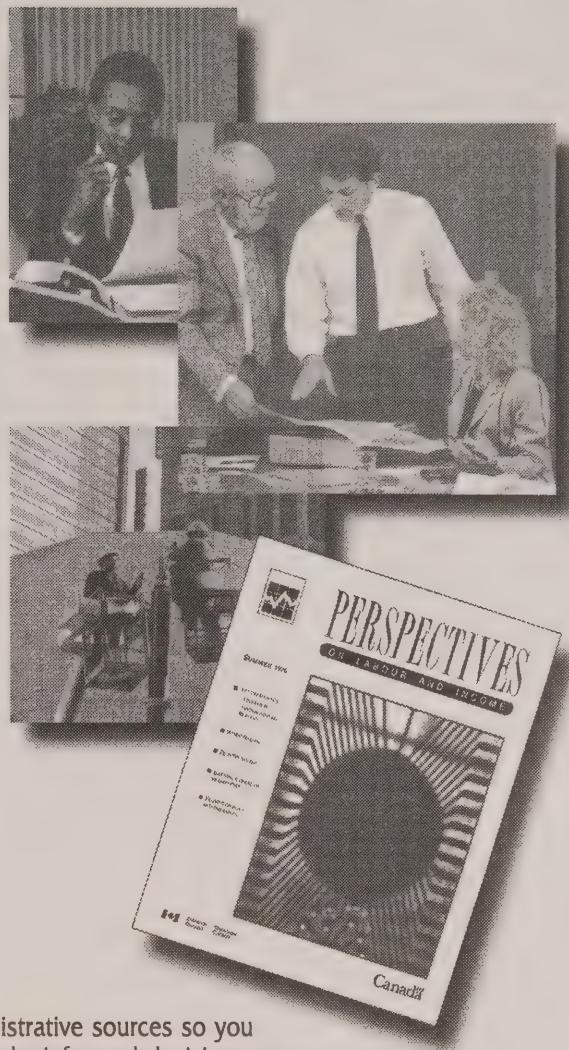


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